NORTH DAKOTA TRAUMA SYSTEM

**AMERICAN COLLEGE OF SURGEONS
TRAUMA SYSTEM CONSULTATION
APRIL 27-30, 2008**

**NORTH DAKOTA
DEPARTMENT *of* HEALTH**

<u>**INJURY EPIDEMIOLOGY**</u>

1. **Describe the epidemiology of injury in your region and unique features of:**
   This data on the leading causes of injury deaths is from 2006 Vital Records information.

   a. **Children**
   The leading causes of death in ND children from the ages of birth to 12 years old are motor vehicle crashes (car/van/pickup) and homicide.

   b. **Adolescents**
   The leading causes of death in ND adolescents from the ages of 12 to 19 years of age are motor vehicle crashes (car/van/pickup) and suicide.

   c. **Elders**
   The leading causes of death in the ND elderly are falls, motor vehicle crashes, and suffocation.

   d. **Other special populations**
   In ND we have a significant Native American population and it has been noted that the majority of their deaths are from motor vehicle crashes (car/van/pickup) and other traffic incidents.

2. **Describe the databases that are used to formulate the injury epidemiology profile (e.g., population-based and clinical).**
   Currently there is not one database but multiple data sources that are being evaluated to determine where the problem areas are. These data bases include:
   - *CDC Wisqars*
   - *DOT data for MVC*
   - *ND Vital Records*
   - *North Dakota Council on Abused Women's Services/Coalition Against Sexual Assault in ND for domestic violence and sexual violence stats*
   - *Some hospital discharge data (Altru from SafeKids)*
   - *Trauma Registries*
   - *Youth Risk Behavior Survey*
   - *Behavior Risk Factor Surveillance Survey*
   - *Ambulance Run data*
   - *Hennepin County Regional Poison Center*
   - *Local Safe Community Groups also use police reports, ambulance trip tickets, and child passenger safety information collected through Click It for Kids programs.*
   - *ND Child Fatality Review Panel Annual Report*

3. **Have system epidemiology profile results (e.g., mortality rates, distribution of mechanism, or intent) been compared to benchmark values? If so, please provide comparisons and origins of the benchmarks.**
    Seatbelt usage has been compared to benchmark values. The national benchmark is 92%. In 1998 69% of North Dakotans were using seatbelt and in 2007 82% were using seatbelts.

    Healthy People 2010's benchmark for "Deaths from unintentional injuries – reduce" (rate per 100,000 population) is 17.5 in 2000 ND was at 36.9 and in 2004, ND was 38.8

    Also from Health People 2010 was "Physical fighting among adolescents – reduce" the benchmark is 32%. In 2000, ND was 28% and in 2004 it was 27%.

4. **Describe how emerging injury control patterns (e.g., from trend or surveillance data) were identified and acted upon.**
    The North Dakota State Injury Prevention Coalition has written a state plan using the top 5 unintentional and intentional injury deaths with strategies to reduce the deaths. The data used to write the state plan was from 2001-2005. No decisions have been made from the plan, but the coalition is working on its next action steps. The mission statement from the coalition is"The North Dakota Injury Prevention Coalition is a multi-disciplinary partnership to reduce unintentional and intentional injuries and death."

    Local Safe Community Groups also assesses the area data to make their action plans for the following year.

    North Dakota's Attorney General has instituted a new program called 24/7 Sobriety in 12 counties in the south-central part of the state. In 2006 there were over 6,000 people arrested for drunk driving. Over 2,000 of those were repeat offenders. With this program the offender will be ordered to go to the sheriff's department twice a day for a breathalyzer test. If any trace of alcohol is detected, he/she is immediately taken to jail. This program has been in place in South Dakota and 99.8% of the offenders have shown up and 99.3% have passed their breath test. This program was discussed at a State Trauma Committee Meeting and was presented at the 2007 State Trauma Conference by the South Dakota Attorney General.

5. **Describe how ongoing and routine injury surveillance is completed and how results are shared with constituent groups.**
    Injury surveillance is worked on through the Division. of Health Vital Records. The Injury Prevention Division is working on developing a system for surveillance but it is slow with limited funding.

6. **List organizations dedicated to injury prevention within the region and the issues they address (e.g., MADD, SADD, SafeKids Worldwide, Injury Free Coalition for Kids, ATS, university-based injury control programs).**

   There are numerous organizations active in ND, many of whom work together under the Safe Community umbrella. These groups and some of their activities include:

   - *Health Units – Child Passenger Safety, Bicycle Safety*
   - *Law Enforcement (Highway Patrol, Sheriff's Department, City Police) - Underage Drinking, Seat Belt Usage, Speeding, and Driving Under the Influence*
   - *Trauma Centers – Many Injury Prevention Projects*
   - *Schools (Private, Public, and Secondary) - Underage Drinking, Seatbelt Usage, Bullying, Suicide Prevention*
   - *Judicial Systems (Juvenile Court) – Underage Offenses*
   - *Military – Child Passenger Safety Seats and Domestic Violence*
   - *Local Government (Mayors and City Engineers) – Pedestrian Safety*
   - *Fire Departments – Fire Prevention*
   - *Ambulance Services – Underage drinking, Motor Vehicle Safety*
   - *Mental Health – Suicide Prevention*
   - *Addiction Services – Underage Drinking, Drinking and Diving*
   - *Media – They are involved in most projects*
   - *Community Action – Youth Programs*
   - *Private Citizens – Assists with many injury prevention projects*
   - *Businesses/retailers – Supports many injury prevention projects*
   - *Liquor industry – Underage Drinking and Drinking and Driving*
   - *Civic Groups – Youth Projects*
   - *MADD – Drinking and Driving*
   - *SADD – Impaired Driving and Underage Drinking and Drug Usage*
   - *Emergency Nurses Association – Impaired Driving, Child Passenger Safety Seats, and Seat Belts*

   Other organizations include:
   - *Safe Kids – Youth Safety*
   - *4-H – Animal and Household Safety*
   - *FCCLA – Family Career and Community Leaders of America*
   - *Farm Safety Just 4 Kids – Farm Safety*
   - *Nodak Mutual Farm Safety Program*
   - *AAA – Motor Vehicle Safety*
   - *ND Parks and Recreation - Safety Certification for ATV for kids 12 and older*
   - *ND Game and Fish – Becoming an Outdoors Woman, Boating & Water Safety Education, Hunter Education, and the National Archery in the Schools Program*

Documentation Required:
  Prior to Site Visit:
  ☑ No additional documentation required

INDICATORS AS A TOOL FOR SYSTEM ASSESSMENT

1. **Has a multi-disciplinary stakeholder group participated in the scoring and consensus process associated with the BIS tool? If not, are there plans to do so?**
    A face to face meeting was held and the 16 indicators included with this document were presented to the State Trauma Committee. The scores were determined by consensus.

2. **If the process has been completed, how were the findings used?**
    This process has not been completed. It is our intent to use the BIS tool to develop a system plan after recommendations are received from the ACS System Consult.

3. **Is there a date (year/month) set for a re-assessment using the BIS to mark progress toward agreed upon goals or benchmarks?**
    No specific date has been specified for the re-assessment of the state trauma system plan. It is the intent to implement the recommendations provided by the ACS consultation in the revised plan. The State Trauma Committee will be involved with the re-assessment and revision of the current trauma system plan. Within the process of the revision, timelines will be developed to monitor goal achievements and benchmarks.

Documentation Required:

Prior to Site Visit:

☑ No additional documentation required.

SECTION 2: POLICY DEVELOPMENT

<u>**STATUTORY AUTHORITY & ADMINISTRATIVE RULES**</u>

1. **Describe how the current statutes and regulations allow the state or region to:**
   a. **develop, plan, and implement the trauma system**
   North Dakota Century Code 23-01.2 was enacted in 1995 and began the establishment of our current trauma system. North Dakota has an integrated comprehensive state trauma system designed to be inclusive of all health-care providers in the state. The trauma system provides a state of readiness or a preplanned response for care of the injured victim. This response requires the use of coordinated communications, accurate identification of the level of care required and rehabilitation services.

   b. **monitor and enforce rules**
   The State Health Council establishes the standards and regulations for the state trauma system and the North Dakota Department of Health – Division of Emergency Medical Services maintains and enforces them within system. The State Trauma Coordinator, State Trauma Committee, and state site review teams continuously monitor standards and rules when doing designation visits and regional trauma meetings. Any issues are discussed at quarterly State Trauma Committee meetings, and rule changes go through the State Health Council and Public Hearings.

   c. **designate the lead agency**
   The North Dakota department of Health (DOH) under the auspices of the State Health Council is the lead agency for the state trauma system. The Division of Emergency Medical Services (DEMS) is the department in which the trauma system is managed. DOH-DEMS has the authority to oversee the trauma system plan, emergency medical services protocols, licensing of ambulances, hospital trauma standards, trauma registry, and the quality improvement program.

   d. **collect and protect confidential data**
   The state trauma system contains a state trauma registry. Designated trauma centers must participate in the trauma registry. A hospital not designated as a trauma center must also provide to the registry a minimum set of data elements for all trauma patients as determined by the state.

   Data in the registry is not subject to subpoena or discovery or introduction into evidence in any civil action. Information may not be released from the state trauma registry except as permitted by North Dakota century code section 23-01-15.

North Dakota Century Code 23-01-15- Research studies confidential –
Penalty

1. *All information, records of interviews, written reports, statements, notes, memoranda, or other data procured by the state department of health, in connection with studies conducted by the state department of health, or carried on by the department jointly with other persons, agencies, or organizations, or procured by such other persons, agencies, or organizations, for the purpose of reducing the morbidity or mortality from any cause or condition of health is confidential and must be used solely for the purposes of medical or scientific research.*

2. *Such information, records, reports, statements, notes, memoranda, or other data is not admissible as evidence in any action of any kind in any court or before any other tribunal, board, agency, or person. Such information, records, reports, statements, notes, memoranda, or other data may not be exhibited nor their contents disclosed in any way, in whole or in part, by any officer or representative of the state department of health, nor by any other person, except as may be necessary for the purpose of furthering the research project to which they relate. No person participating in such research project may disclose, in any manner, the information so obtained except in strict conformity with such research project. No officer or employee of said department may interview any patient named in any such report, nor a relative of any such patient, unless the consent of the attending physician and surgeon is first obtained.*

3. *The furnishing of such information to the state department of health or its authorized representative, or to any other cooperating agency in such research project, does not subject any person, hospital, sanitarium, rest home, nursing home, or other person or agency furnishing such information, to any action for damages or other relief.*

e. **protect confidentiality of the quality improvement process**
   It is in North Dakota Century Code 23-01.2 that the proceedings and records of the quality improvement program are not subject to subpoena or discovery or introduction into evidence in any civil action arising out of any matter that is the subject of consideration by the program.

2. **Describe the process by which trauma system policies and procedures are developed or updated to manage the system including:**

   a. **the adoption of standards of care**
   Policies and procedures are developed or updated according to new standards published by the ACS in the Optimal Care of the Injured Patient, and when issues arise during site visits. The State Trauma Committee discusses new developments and changes and makes the decision on whether to implement them within the state trauma system. The State Trauma Coordinator implements the changes within the system, and updates all State Trauma Coordinators, Trauma Program Managers, and other trauma stakeholders.

   b. **designation or verification of trauma centers**
   Level I, II, and III trauma centers are verified under the auspices of the American College of Surgeons and receive a state designation automatically once the verification has been approved by the American College of Surgeons Committee on Trauma. The guidelines for levels I, II, and III are taken from the current Resources for Optimal Care of the Injured Patient.

   The requirements for the Level IV and IV's for the Trauma Rules originated from the American College of Surgeons, Committee on Trauma's "Resources for Optimal Care of the Injured Patient; 1993". Since then the requirements have been updated and revised and are found in the Trauma System Regulations Chapter 33-38-01-13 and 14.

   c. **direct patient flow on the basis of designation**
   All ND ambulances are required to have transport plans, which is a method to preplan who will care and transport the patient. Compliance, although mandated, it is not followed in communities with nondesignated hospitals.

   d. **data collection, and**
   All hospitals, whether designated as trauma centers or not, by law are required to submit their trauma data to the state trauma registry using the inclusion criteria. The State Trauma Committee is responsible for the State Trauma Registry. They have asked the State Trauma Coordinator and the Level II Trauma Program Managers to define the data to be collected. This group distributed the ND Data Dictionary, which complies with ACS National Data Trauma Bank, at the 2007 State Trauma Coordinators Meeting. Earlier this group also made recommendations for inclusion criteria for the State Trauma Registry.

e. **system evaluation**

It is in trauma system regulations that a quality improvement process shall be established by the State Trauma Committee. The process includes evaluation criteria that provide guidelines for acceptable standards of care. Regional Committees also evaluate the trauma system within their region based upon the evaluation criteria. The regional committees make recommendations to emergency medical services and trauma centers in the development of plans to improve the trauma system. Our trauma system has been weak in this area due to inconsistent data from the trauma registry. Currently we are working at improving our registry so we can begin to use the data for quality improvement issues.

All trauma program managers and EMS personnel in the state are encouraged to bring any issues or concerns in regards to the trauma system to the State Trauma Coordinator's attention. The State Trauma Coordinator then brings those concerns and issues to the State Trauma Committee for discussion and action.

It is also the intent of the State Trauma System to use the ACS consultation report to address and improve on issues stated in the report and include them into the future ND trauma system plan.

3. **Within the context of statutes and regulation, describe how injury prevention, EMS, public health, the needs of special populations and emergency management are integrated or coordinated within the trauma system.**

Injury Prevention/Public Health
- *There are no specific statutes or regulations requiring injury prevention/public health within the trauma system, however it is part of the State Trauma Committee's responsibilities to address trauma injury prevention and public educational needs.*
- *The state trauma system supports public education and trauma prevention programs throughout the state.*
- *Our level II trauma program managers along with the State Trauma Coordinator work closely with respective regions in providing resources and ideas for injury prevention at the State Trauma Coordinators Workshop, which precedes the Statewide Trauma Conference.*
- *The Level II and III Trauma Program Managers work closely with the Safe Community coalitions in their communities. Public Health is also closely involved with these groups. The Safe Community Coordinators have a state-wide working relationship and their projects have been brought to the State Trauma Committee for their support and involvement; i.e. 2007 Seat Belt Law changes and ATV's on highways*

- *State Trauma Coordinator is a part of the ND State Injury Prevention Coalition. This is a multidisciplinary coalition that has begun to revamp its mission and goals. Once goals and objectives have been established the State Trauma Coordinator will give a quarterly report to the State Trauma Committee on the coalition activities.*
- *Hospitals are encouraged to participate in injury prevention and public education specifically related to trauma. This is reviewed and encouraged at each trauma designation site visit.*
- *The ND State Injury Prevention Department participated in the annual trauma conference as a vendor to provide resources and information to conference participants from all over the state. The director of the ND Injury/Violence Prevention Program also presented injury statistics and resources at the State Trauma Coordinator Workshop.*

EMS

EMS Ground Ambulance Services Chapter 33-11-01-.2-14 states that major trauma patients must be transported to a designated trauma center as per N.D.A.C 33-38. EMS Ground Ambulance Services Chapter 33-11-01.2-15 state when it does not delay transport time, basic life support ambulance services must call for a rendezvous with an advanced life support ground ambulance, or an advanced life support or critical care air ambulance if the basic life support ambulance is unable to provide the advanced life support interventions needed to fully treat a patient exhibiting a major trauma, cardiac chest or acute myocardial infarction, cardiac arrest, or severe respiratory distress or respiratory arrest.

Trauma System Regulation Chapter 33-38-01-04 requires that all emergency medical services licensed by the ND Department of Health establish trauma code activation protocols, trauma patient care protocols that have been reviewed and approved by a medical director, and local emergency medical services transport plans.

Trauma System Regulation Chapter 33-38-01-05 requires Emergency Medical Services to develop local emergency medical services transport plans for the transport of the major trauma patients by appropriate means to the nearest designated trauma center. EMS may bypass the nearest designated trauma center for a higher level trauma center, provided that it does not result in an additional thirty minutes or more of transport time. If there are multiple trauma centers in the community, the major trauma patient meeting the criteria in steps one or two of the field triage decision scheme, provided by the ACS Resources for Optimal Care of the Injured Patient: 1999, should be taken to the trauma center with the highest level of designation. The plans are subject to approval to the regional trauma committees. Following the approval, the local emergency medical services transport plans must be filed with the department and distributed to participating dispatch centers.

The EMS Medical Directors have scheduled an annual meeting in conjunction with the ND State EMS Conference for many years, but been poorly attended. The State EMS Director has been working to improve participation. He is striving to change the meeting to be in conjunction with the ND State Trauma Conference, as many physicians attend and have the opportunity to earn Trauma CME.

Special Populations
There are no statutes or regulations that specifically address special populations within our trauma system. Within the regulations our State Trauma Committee must consist of a member representing Indian Health Services, and in addition an Ad-Hoc Pediatric representative was appointed. Also within the trauma system regulations regional committees must have a member representing Indian Health Service or Tribal Government.

Emergency Management
There are no statutes or regulations that specifically address Emergency Management within our trauma system. One of the ad hoc members of the State Trauma Committee represents Emergency Preparedness and Response. A representative was also invited to be part of each of the Regional Committees. A section in the trauma designation application was added to address the hospital's Mass Casualty/Disaster protocols and the site visit team reviews the protocols and plans at the trauma designation site visit.

Documentation Required:

Prior to Site Visit:
- ☑ Trauma system statutes and regulations
- ☑ EMS statutes and regulations

1. **How does the lead agency bring constituency groups together to review and monitor the trauma system throughout each phase of care?**
EMS – Prehospital care is reviewed during designation visits by looking at trip tickets on charts.

Hospital Care is reviewed through the designation process every three years. Any care issues outside of the designation review brought formally to the State Trauma Coordinator's attention are taken to the State Trauma Committee for evaluation and action.

Rehab – We do not monitor or review at this time.

2. **Describe the composition, responsibilities and activities of the multidisciplinary trauma system advisory committee (s) and its working relationship with the trauma lead agency and the EMS lead agency, if they are different.**
The State Trauma Committee is responsible for activities of the state trauma system and works in conjunction with the Director of the Division of Emergency Medical Services and the State Trauma Coordinator. State Trauma Committee responsibilities include:
   1. *Monitors the standard of care of the trauma system as defined by requirements:*
      - *Prehospital triage of the major trauma victim*
      - *EMS transport plans*
      - *Emergency department, hospital care, rehabilitation*
   2. *Addresses systems issues, such as:*
      - *Quality of care*
      - *Patient outcomes*
      - *Education needs*
      - *Prehospital issues*
      - *Trauma injury prevention*
   3. *Provides a forum for:*
      - *Establishing policy/guidelines*
      - *Problem solving*
      - *Identification of issues*

4. *Reviews designation of trauma centers:*
   - *Reviews applications and site visit reports for Level IV and V Trauma Centers*
   - *Recommends approval or denial of trauma center designation based on trauma system criteria provided by North Dakota Administrative Code 33-38-01-13 and -14. Trauma Center designation is provided by North Dakota Department of Health.*
   - *Evaluates and conducts provisional designation site visits for Level I, II, or III Trauma Centers*
   - *Reviews any 'plan of correction' submitted by a facility, to recommend an appropriate course of action*
5. *Monitors the effectiveness of the trauma system through:*
   - *A periodic review of ongoing Quality Improvement*
   - *Quality outcomes based on the data submitted to the state trauma registry.*
6. *Supports public education and trauma prevention programs and is involved in legislative activities affecting the trauma plan.*
7. *Defines four trauma regions of the state and oversees the functions of the regional trauma committees.*

a. **Identify pediatric representatives on the multidisciplinary trauma system advisory committee and any pediatric advisory groups that provide input into trauma system development.**
   Waldemar Storm, MD, MeritCare Children's Hospital, is the pediatric representative to the State Trauma Committee.

   The State Trauma Coordinator is on the Emergency Medical Services for Children (EMSC) advisory board. The State Trauma Coordinator also works closely with the EMSC coordinator in looking at and resolving issues concerning pediatric injuries. Right now the EMSC program is working on performance measures required by the HRSA grant. Some specific measures currently being addressed dealing with trauma system development for pediatric patients are:
   - *Online and offline medical direction for pediatric emergencies*
   - *Appropriate pediatric equipment in hospitals and ambulances for pediatric injuries*
   - *Pediatric transfer agreements*

   The ND Child Fatality Review Panel within the ND Department of Human Services reviews deaths of all children (under 18 years of age) which occur in the state. By sharing information and reviewing data, panel members review the circumstances surrounding the deaths and look for patterns or trends to identify possible prevention strategies.

b. Describe the process of involving experts in, and advocates for, special populations, and how they help drive regional trauma system policy

Members of the State and Regional Trauma committees include representatives from the Indian Health Services, American Academy of Pediatrics (State Committee only), and hospital and EMS representatives from rural and frontier areas of the state. When issues with specific special populations arise, the State Trauma Committee relies on the knowledge and expertise of the representative from that special population to guide with system changes and improvements.

c. Describe how the multi-disciplinary advisory committee is involved in trauma system performance evaluation (e.g., review of system performance reports).

We currently do not have a formal performance process in place. This is an area we have struggled with in the past, due to an incomplete trauma registry. After many years all ND Hospitals now have the same Trauma Registry. There are still problems with the Trauma Registry that we are working with the vendor to correct. In the meantime we are looking at what filters to include for a more thorough evaluation of our trauma system, once valid data is available.

Our State Trauma Committee does review all the trauma site visit reports written by the state team for the Level IV and V facilities and addresses any issues that may arise from those reports (i.e. time in the rural hospital before transfer, appropriate trauma team activation, and appropriate labs, x-rays, and CT performed before transfer). The State Trauma Committee also reviews any deficiencies from the Level II facilities and approves the Trauma Center's plan to improve and to meet the standards.

Two years ago at the Trauma Coordinators' Workshop, PI and Benchmarking were discussed. Several level IV and V Trauma Centers gathered data and the Trauma Program Manager from one of the Level II's put the information together and presented it the following year at the Trauma Coordinators' Workshop.

3. **Provide examples of how the lead agency and trauma system leadership (e.g., trauma centers, trauma medical director, nurse coordinator, trauma administrator, and other stakeholders) inform and educate policy makers, elected officials, community groups, and others about the trauma system, its strengths, and its improvement opportunities.**

    State Trauma Coordinator has given presentations of the trauma system to multiple groups throughout the state some including the Native American Health Summit, ND Injury Prevention Coalition, and Safe Communities Coordinators.

    Trauma Leaders from North Dakota Trauma Centers have also done presentations to their communities on the Trauma System and how it benefits them all.

    Trauma Leaders have also testified at state and local levels to legislators on bills related to trauma, such as the primary seatbelt law, ATV use on highways, and Trauma System Consultation by the American College of Surgeons.

    The Vice Chair of the State Trauma Committee serves as the trauma representative on the ND Healthcare 2020 committee.

    Members of the ND State Trauma Committee take trauma information to the groups they represent.

    The North Dakota Trauma Coordinators have a newsletter that is sent to all Trauma Coordinators in the state and to other stakeholders that includes injury prevention information and updates from the North Dakota State Trauma Committee and Regional Committees.

4. **Describe the process to build or expand effective trauma leadership within the trauma system (e.g., succession planning, leadership courses, workshops, etc.), including the lead agency and trauma centers**.
   During the time that the North Dakota Trauma System was being formed, the meetings were all face to face. Since the rules have been put into place communications are primarily telephone conference calls. Once every year or two we try to have a long face to face working meeting. This usually includes an educational topic and discussion about the ND Trauma System and improvements that could/should be made to it.

   The North Dakota Health Department provides ATLS/TNCC reimbursement for physicians and midlevles at nondesignated hospitals and Level IV and V's.

   For seven years, the day before the State Trauma Conference, the State Trauma Coordinator and the Trauma Program Managers from the Level II and III Trauma Centers developed a Workshop for the Trauma Coordinators from the Level IV and V, and non-designated hospitals. This has been a mentoring process for new and experienced Trauma Coordinators.

   The North Dakota Trauma Foundation, in conjunction with the Level II and III North Dakota Trauma Centers and the North Dakota Health Department, sponsors the Annual North Dakota Trauma Conference.

   ND COT representative and Vice Chair of the STC has been working with surgeons throughout the state to encourage their involvement with trauma issues and the state system.
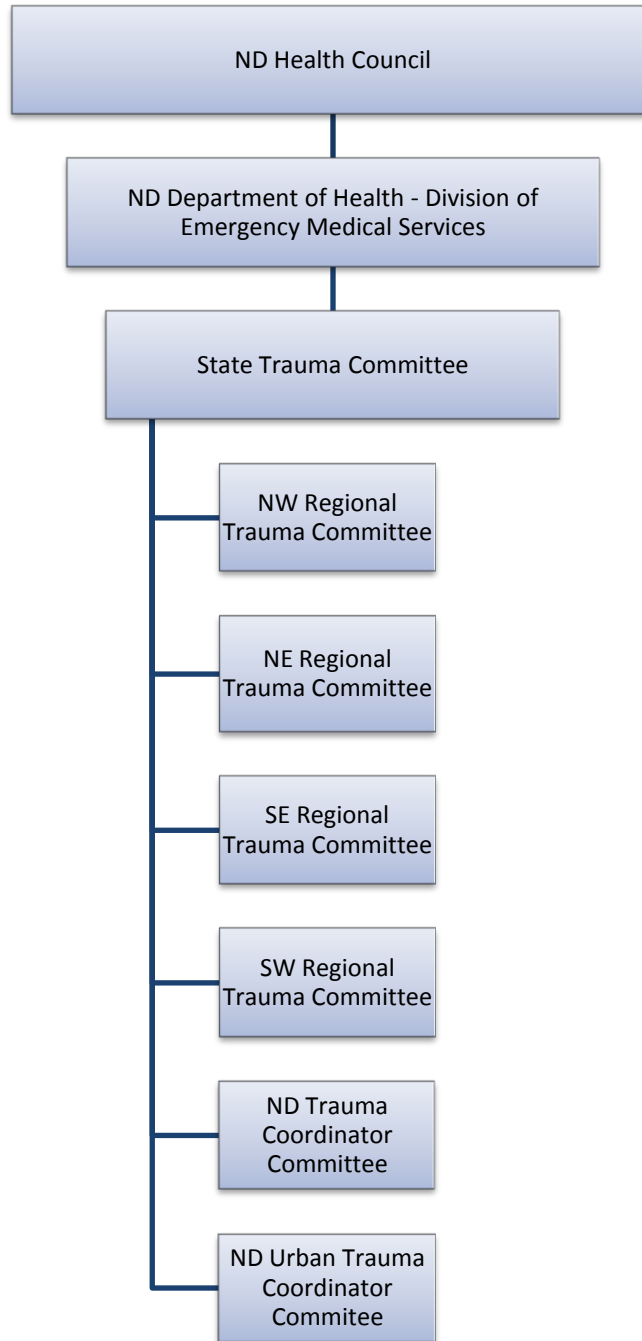
   The North Dakota and South Dakota Chapters of the ACS-COT have agreed to sponsor a National Trauma Speaker for the North Dakota – South Dakota American College of Surgeons Conference. The North Dakota ACS-COT has also agreed to sponsor and Advanced Airway Course to be taught in conjunction with the 2008 ND Trauma Conference.

Documentation Required:

Prior to Site Visit:

- ☑ A comprehensive organizational chart that identifies the lead agency staff (including contract employees) assigned to the trauma program (full or part-time)
- ❖ Provide a copy of the most recent trauma system aggregated performance improvement report generated by the lead agency – We do not have a generated performance improvement report.
- ☑ Organizational chart that illustrates the system oversight committee, its subcommittee, and its relationship to the lead agency

SYSTEM OVERSIGHT COMMITEES

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│  ND Department of Health - Division  │
│    of Emergency Medical Services     │
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               │     Commitee     │
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ND Health Council – the health council in conjunction with the state department of health maintains the comprehensive trauma system for the state.
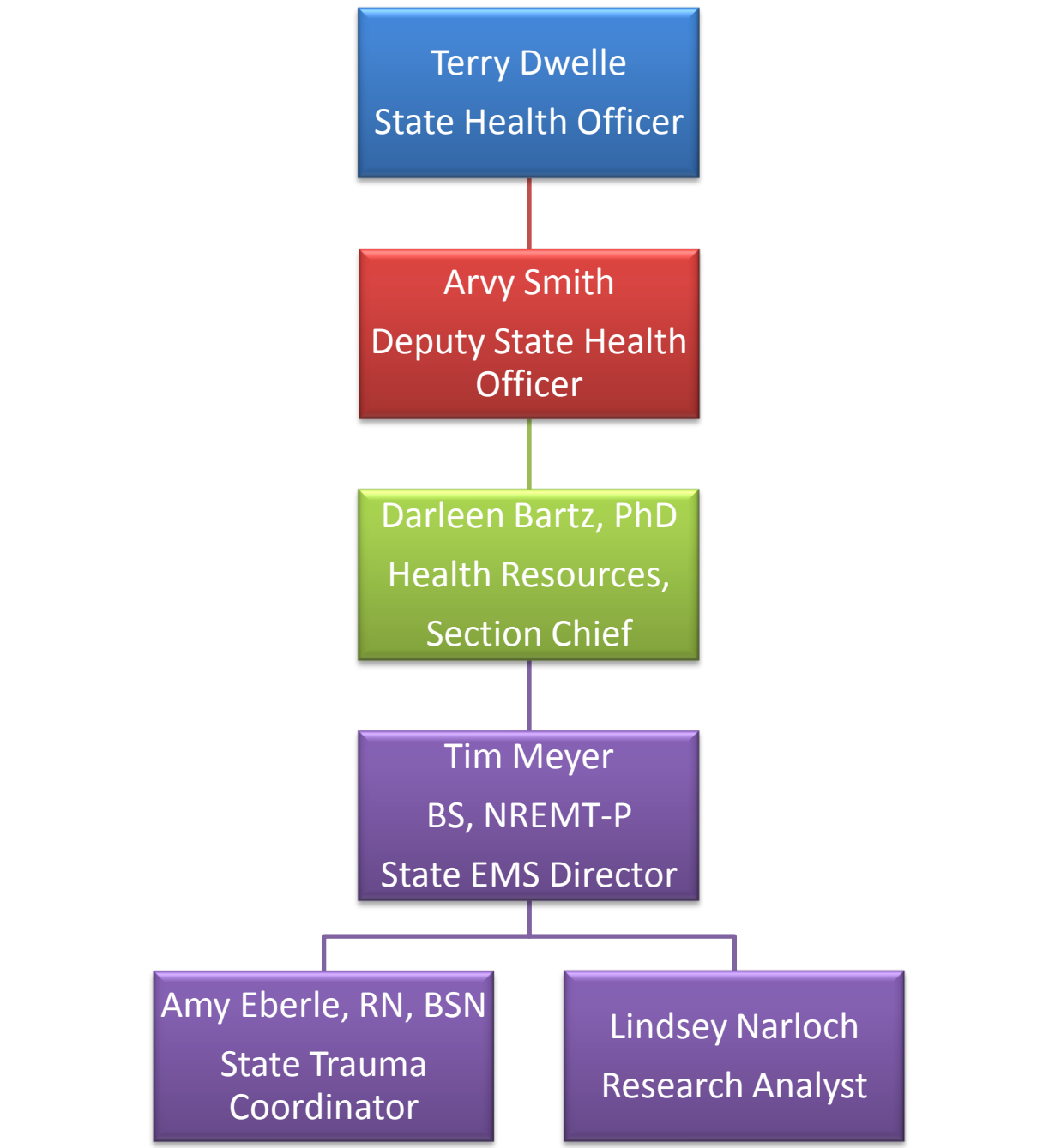
State Trauma Committee – serves as the advisory committee to the lead agency.

Regional Committees – report to the State Trauma Committee on activities relating to trauma in respective regions.

ND Trauma Coordinator Committee – involved trauma coordinators from all hospitals both trauma designated and nondesignated. Lead agency provides information on policies, procedures, and changes within the trauma system.

ND Urban Trauma Coordinator Committee – involves trauma program managers from the level II and III trauma centers. Its main focus is to provide resources, guidance, education, and outreach to the level IV, V, and nondesignated hospitals.

Lead Agency Trauma Program Staff

Terry Dwelle
State Health Officer

Arvy Smith
Deputy State Health Officer

Darleen Bartz, PhD
Health Resources,
Section Chief

Tim Meyer
BS, NREMT-P
State EMS Director

Amy Eberle, RN, BSN
State Trauma Coordinator

Lindsey Narloch
Research Analyst

1. **What is the status of the trauma system's coalition (e.g., recruiting members and building coalition; is it a strong and active coalition; does the coalition need new energy, which not currently involved should be a part of your coalition)?**
   Within the trauma system rules representation for the State Trauma Committee is specified. There hasn't been a great deal of turnover since the committee was formed. We have very dedicated members who are active in trauma system activities. We have come to realize that there is no real succession plan in place.

   Currently the State Trauma Committee does not have a member representing Injury Prevention. This could be addressed when the rules governing the membership of the State Trauma Committee are revised. In the meantime, we are inviting an injury prevention representative to attend the meetings, but will not be a voting member.

   a. **What is the role of the coalition members (constituents and stakeholders) in promoting trauma system development?**
      From the early 90's when the ND Trauma System was being developed, the Level II's and the hospitals that were striving to become Level II's have been very active in trauma system activities. These activities included:
      - *Hospitals supporting their TPM's, Trauma Surgeons, and Administrators to attend and participate in multitudes of meetings and hearings.*
      - *When it was questionable whether there would be funding to support the State Trauma Coordinator's position, the Level II hospitals and supporting organizations contributed money to support the position. When permanent state funding was found, the money that was contributed became the beginning of the ND Trauma Foundation. The Foundation began funding rural ambulance and hospital equipment and educational needs relating to trauma and also sponsors the annual State Trauma Conference.*
      - *These hospitals worked very hard to become and maintain verification as Level II Trauma Centers, with no financial incentives from the State.*
      - *For the first 8 to 10 years of our Trauma System, the Level II's sent their Trauma Surgeon and Trauma Program Managers to rural facilities to do site visits, without compensation. The Level II's were permitted to ask the Level IV's and V's for reimbursement of mileage, food and lodging, but that has never been requested. Currently the state reimburses a minimal amount to the Level II hospitals for doing the site visits.*

- *Our state trauma committee members, Level II Trauma Hospitals and TPM's, ND Hospital Association, ND EMS Association, ND Medical Association, and the American Heart Association have been very active with legislation in promoting the trauma system. For example the above stakeholders were very active in contacting legislators for appropriations to conduct the ACS Trauma System consultation for the ND.*
- *Consultation visits are done by the State Trauma Coordinator, Level II TPM's and trauma surgeons to the non designated hospitals to provide information and direction to get their trauma programs started.*
- *We have many coalition members that represent the rural and frontier areas of the state and have been very active in promoting the trauma system in their respective regions.*

   b. What is the method and frequency for communicating with coalition members?
   The State Trauma Committee meets at least quarterly via telephone conference call and a once a year face to face meeting. Electronic mail is utilized for additional communication. We do have the possibility of a Statewide Trauma List Serve that has not been activated yet.

2. **Describe how the trauma system leadership mobilizes community partners to improve the trauma system through effective communication and collaboration.**

   a. How has the community been approached to identify injury control concerns?
   Trauma designated hospitals are encouraged by the lead agency and Regional and State Trauma Committees to provide education on injury prevention throughout their communities. Many hospitals use local newspapers, churches, schools, and health fairs within their community to be a resource and provide education.

   Regional Safe Community groups have worked with the Level II and III Trauma Centers to obtain yearly injury data for prioritizing injury control projects for their groups.

   The Safe Community groups are also working with the Trauma Centers to provide resources for their SBI programs.

b. What key problems has the community identified?

North Dakota's seat belt law is one with secondary enforcement. During the 2007 Legislative session the Safe Community groups, together with many organizations support, including members of the State Trauma Committee, brought forth a bill for standard enforcement. It failed, but with a smaller margin and more support than in previous attempts.

In late 2007 the North Dakota Injury Prevention Coalition discussed the increasing number of road fatalities related to intoxication and lack of seatbelt use. A subcommittee was formed to address these issues. Representation on the committee includes the State Trauma Coordinator, a Level II Trauma Program Manager, a Level II Trauma Registrar/Injury Prevention Coordinator, State Highway Patrol, and the Highway Traffic Safety Division.

There was a bill in front of the last Legislature that would allow ATV's to operate on highways in North Dakota. Representatives from the ND Hospital Association and a Pediatrician from a Level II Trauma Center testified against passage of the bill. Unfortunately it did pass and did become law.

We have also identified other problems in North Dakota including:
- *We do not have a motorcycle/ATV helmet law*
- *A law was passed by the 2007 Legislative Session that allows ATV's that are equipped with a mirror, horn, speedometer, odometer, brake lights, lighted headlamp, and a motor of at least 350 cubic centimeters to operate on a paved highway up to 55 mph. A driver over 16 years of age may operate a registered Class III off-highway vehicle on a paved highway up to 65 mph.*
- *Drinking and Driving continues to be a problem*
- *A graduated licensing law was passed for young drivers. It was a good first step, but does not include provisions for; 30 – 50 Hours of Supervised Driving, Nighttime Restriction, and a Cell Phone Use.*
- *Suicide rates are high in some parts of the state*

c. How do stakeholders bring system challenges or deficiencies to the attention of the lead agency?
Stakeholders are encouraged at trauma and EMS regional meetings and trauma coordinator meetings to bring any system issues to the lead agency's attention. The State Trauma Coordinator brings them to the State Trauma Committee for discussion and actions.

Also any system challenges or deficiencies that are found during the designation process for all levels are discussed at the State Trauma Committee. The State Trauma Coordinator is also a member of the site visit team and is able to bring critical information promptly to the Director of the Division of Emergency Medical Services.

Documentation Required:

Prior to Site Visit:

☑ Provide a list of and organizations represented for trauma system planning or injury control (e.g., multidisciplinary State advisory committee, subcommittees, and other groups supporting trauma system development)

ND State Trauma Committee

ND Medical Association
Kent Hoerauf, MD
West River Regional Medical Center
Hettinger ND

UND School of Medicine
David Antonenkdo, MD
Grand Forks ND

ND Chapter, American College of Emergency Physicians
Craig Lambrecht, MD
Medcenter One
Bismarck ND

**ND COT, American College of Surgeons
SW Regional Chair**
Steve Hamar, MD
Mid Dakota Clinic
Bismarck ND

Accredited Rehabilitation Facilities
Shelly Killen, MD
St. Alexius Physical Medicine Clinic
Bismarck ND

SE Regional Trauma Committee Chair
Dan Hunt, MD
Innovis Health
Fargo ND

Ad-Hoc American Academy of Pediatrics
Waldemar Storm, MD
MeritCare Children's Hospital
Fargo ND

Indian Health Service
Diana Larocque
Aberdeen Area Office
Aberdeen SD

American Health Care Association
Terry Hoff, Administrator
Trinity Medical Center
Minot ND

NW Regional Trauma Committee Chair
Sandy Boschee
Trinity Health
Minot ND

ND EMS Association –ALS
Wayne Fahy
St. Aloisius Hospital
Harvey ND

ND EMS Association –BLS
Derek Hanson
St. Alexius Medical Center
Bismarck ND

NE Regional Trauma Committee Chair
Cheryl Korsmo
Northwood Deaconess Health
Northwood ND

ND Emergency Nurses Association
Mary Jagim
MeritCare Medical Center
Fargo ND

Trauma Consultant
Rhonda Bugbee
Minot ND

Ad-Hoc Emergency Preparedness and Response
Cheryl Underhill
Southwest Central Health
Bismarck ND

Ad-Hoc Legislative Representative
Todd Porter
Mandan ND

ND Nurses Association
Kathy Seidel
St. Alexius Medical Center
Bismarck ND

ND Trauma Coordinator Committee Chair
Shelly Arnold
Medcenter One
Bismarck ND

NW Regional Trauma Committee

ND Committee on Trauma – ACS
Lane Lee, DO, FACOS
Trinity Health

ND Chapter, American College of Emergency Physicians
Jeff Sather, MD
Trinity Health

Rural Hospitals
Gwen Wall
St. Andrews Medical Center
Bottineau, ND

Gail Raasakka
Mountrail County Medical Center
Stanley, ND

Mary Haugland
St. Luke's Hospital
Crosby, ND

Bev Heninger
Kenmare Community Hospital
Kenmare, ND

Mary Jo Miller
Tioga Medical Center
Tioga, ND

Jana Michels
Heart of America Medical Center
Rugby, ND

Sally Eberle
Garrison Memorial Hospital
Garrison, ND

Carrie Heinz
Presentation Medical Center
Rolla, ND

Sherry Risovi
Towner County Medical Center
Cando, ND

Shareen Parisian
Quentin Burdick Health Care Facility
Belcourt, ND

Level II Trauma Coordinator
Karen Zimmerman
Trinity Health
Minot, ND

Accredited Rehabilitation Facility
Marcel Young, MD
Trinity Health
Minot, ND

Indian Health Services
Chris Lee
Rolla, ND

EMS Representatives
Greg Anderson
Community Ambulance Service
Minot ND

Sandy Boschee (Aeromedical)
Trinity Health
Minot, ND

Rural Physicians
Penny Wilkie, MD
Quentin Burdick Health Care Facility
Belcourt, ND

Michael Questell, MD
Rolla Clinic
Rolla, ND

Greg Culver, MD
Towner County Medical Center
Cando, ND

Disaster Preparedness
Position not filled at this time

NE Regional Trauma Committee

ND Committee on Trauma – ACS
David Antonenko, MD
UND School of Medicine
Grand Forks, ND

ND Chapter, American College of Emergency Physicians
Chris Boe, MD
Altru Hospital
Grand Forks, ND

Rural Hospitals
Michelle Hoffman
Cavalier County Memorial Hospital
Langdon, ND

Deb Stark
Pembina County Memorial Hospital
Cavalier, ND

Jim Restemayer
Unity Medical Center
Grafton, ND

Cheryl Korsmo (Chair)
Northwood Deaconess Health Center
Northwood, ND

Deb Zieman
Mercy Hospital
Devils Lake, ND

Bette Messner
Nelson County Health System
McVille, ND

Level II Trauma Coordinator
Vicky Black
Altru Hospital
Grand Forks, ND

Accredited Rehabilitation Facility
Karla Bruce, MD
Altru Hospital
Grand Forks, ND

Indian Health Services
Steve Cartier

EMS Representatives
Sandi McDonald
Cavalier Ambulance
Cavalier, ND

Joy Hillukka
Pembina Ambulance Service
Cavalier, ND

Rural Physicians
O.S. Omotunde, MD

SW Regional Trauma Committee

ND COT-American College of Surgeons
Steve Hamar, MD
Mid Dakota Clinic
Bismarck ND

Jeanette Viney, MD
Medcenter One
Bismarck, ND

ND Chapter, American College of Emergency Physicians
Craig Lambrecht, MD
Medcenter One
Bismarck ND

Benedict Roller, MD
St. Alexius Medical Center
Bismarck ND

Indian Health Services
Holly Mayer-Taft
Fort Berthold Service Unit
New Town, ND

Jackie Quisno
US Public Health Service
Fort Yates, ND

Accredited Rehabilitation Facility
Douglas Eggert, MD
Medcenter One
Bismarck ND

Shelly Killen, MD
St. Alexius Medical Center
Bismarck ND

Rural Hospitals
Deb Grabow
Sakakawea Medical Center
Hazen ND

Chuck Nyjus, MD
St. Aloisius Medical Center
Harvey ND

EMS Representation
Dan Schaefer
Metro Ambulance Service
Bismarck ND

Penny Lewis
Dickinson Ambulance Service
Dickinson ND

Mark Haugen
St. Alexius Medical Center
Bismarck ND

Level II/III Trauma Coordinators
Howard Walth
St. Alexius Medical Center
Bismarck ND

Shelly Arnold
Medcenter One
Bismarck ND

Becky Elkins
St. Joseph's Hospital
Dickinson ND

Rural Physicians
Kent Hoeraruf, MD
West River Regional Medical Center
Hettinger ND

James Brooke, MD
St. Joseph's Hospital
Dickinson ND

Emergency Preparedness
Brad Erickson
Medcenter One
Bismarck ND

Derek Hanson
St. Alexius Medical Center
Bismarck ND

SE Regional Trauma Committee

ND COT- American College of Surgeons
Rober Chambers, MD
MeritCare Clinic
Wahpeton ND

Gary Kubalak, MD
Broadway Health Center
Fargo ND

Timothy Mahoney, MD
Innovis Health
Fargo ND

ND Chapter, American College of Emergency Physicians
Daniel Hunt, MD
Innovis Health
Fargo ND

Troy Schaff, MD
Broadway Health Center
Fargo ND

Rural Physicians
Dr. Luithle
Hillsboro Medical Center
Hillsboro ND

Rural Hospitals
Bruce Bowersox
Hillsboro Medical Center
Hillsboro ND

Judy Anderson
Mercy Hospital
Valley City ND

EMS Representatives
Wade Mitzell
FM Ambulance Service
Fargo ND

Rodney Wirth
Glyndon MN

Accredited Rehabilitation Facility
Jane Olson
MeritCare Medical Center
Fargo ND

Level II Trauma Coordinators
Deb Syverson
MeritCare Medical Center
Fargo ND

Toby Jezzard
Innovis Health
Fargo ND

Emergency Preparedness
Mary Jagim
MeritCare Medical Center
Fargo ND

Indian Health Services
Not filled at this time

ND Trauma Coordinators

ASHLEY - ASHLEY MEDICAL CENTER
Eric Heupel

BELCOURT - QUENTIN BURDICK HEALTH CARE FACILITY
Shareen Parisien

BISMARCK - MEDCENTER ONE HEALTH SYSS
Shelly Arnold

BISMARCK - ST ALEXIUS MEDICAL CENTER
Howard Walth

BOTTINEAU – ST ANDREWS MEDICAL CENTER
Gwen Wall / Jodi Atkinson / Jeanne McGuire

BOWMAN – SW HEALTH CARE SERVICES
Gaye Olson / Kim Norton

BRECKENRIDGE, MN - ST FRANCIS MED
Nancy Nordick/Pat Krebs

CANDO - TOWNER COUNTY MEDICAL CENTER
Sherry Risovi

CARRINGTON - CARRINGTON HEALTH CENTER
Billie Jo Neumiller

CAVALIER - PEMBINA COUNTY MEMORIAL HOSPITAL
Deb Stark

COOPERSTOWN - GRIGGS COUNTY HOSPITAL
Nicki Johnson

CROSBY – ST LUKE'S HOSPITAL
Mary Haugland

DEVILS LAKE - MERCY HOSPITAL
Deb Zieman

DICKINSON - ST. JOSEPH'S HOSPITAL
Becky Elkins

ELGIN - JACOBSON MEMORIAL HOSPITAL & CARE CENTER
Dana Polk-Simmers

FARGO - MERITCARE HOSPITAL
Deb Syverson

FARGO – INNOVIS HEALTH
Toby Jezzard

FORT YATES - STANDING ROCK HOSPITAL
Valerie Eagleshield

GARRISON - GARRISON MEMORIAL HOSPITAL
Sally Eberle

GRAFTON - UNITY MED CENTER
Jim Restemayer

GRAND FORKS - ALTRU HOSPITAL
Vicky Black

HARVEY - ST. ALOISIUS MEDICAL CENTER
Marjorie Kleinsasser/Elanor Sieglock

HAZEN - SAKAKAWEA MEDICAL CENTER
Robert Volk

HETTINGER - WEST RIVER REGIONAL MEDICAL CENTER
Lani Schultz

HILLSBORO - HILLSBORO MEDICAL CENTER
Phyllis Moen

KENMARE – KENMARE COMMUNITY HOSPITAL
Beverly Heninger

JAMESTOWN - JAMESTOWN HOSPITAL
Sue Lunde/Barb Monson

LANGDON - CAVALIER COUNTY MEMORIAL HOSPITAL
Michelle Hoffman

LINTON - LINTON HOSPITAL
Nolan Anderson NREMT-P

LISBON – LISBON AREA HEALTH SERVICES
Michelle Smith

MAYVILLE - UNION HOSPITAL
Doris Vigen

MCVILLE –NELSON CO HEALTH SYS
Bette Messner

MINOT - TRINITY HEALTH
Karen Zimmerman

NORTHWOOD - NORTHWOOD DEACONESS HEALTH CENTER
Cheryl Korsmo

OAKES - OAKES COMMUNITY HOSPITAL
Kris Malheim

PARK RIVER – First Care Health Center
Kerry McCoy NREMT-P/Nancy Carda

RICHARDTON – RICHARDTON HEALTH CENTER
Cyndy Schneider

ROLLA - PRESENTATION MEDICAL CENTER
Carrie Heinz

RUGBY - HEART OF AMERICA MEDICAL CENTER
Jana Michels /Julie Baustad

STANLEY – MOUNTRAIL CO MEDICAL CENTER
Gail Raasakka

TIOGA -TIOGA MEDICAL CENTER
Mary Jo Miller

TURTLE LAKE - COMMUNITY MEMORIAL HOSPITAL
Jason Landenberger/Cheryl Helm

VALLEY CITY - MERCY HOSPITAL
Judy Anderson

WATFORD CITY - MCKENZIE COUNTY HEALTHCARE SYSTEMS HOSPITAL
Cheryl Faulkner

WILLISTON – MERCY MEDICAL
Carol Ventsch / Karen Bercier

WISHEK - WISHEK COMMUNITY HOSPITAL
Calli Klusmann

ND Urban Trauma Coordinators

BISMARCK - MEDCENTER ONE HEALTH SYSS (Level II)
Shelly Arnold

BISMARCK - ST ALEXIUS MEDICAL CENTER (Level II)
Howard Walth

FARGO - MERITCARE HOSPITAL (Level II)
Deb Syverson

FARGO – INNOVIS HEALTH (Level II)
Toby Jezzard

GRAND FORKS - ALTRU HOSPITAL (Level II)
Vicky Black

MINOT - TRINITY HEALTH (Level II)
Karen Zimmerman

DICKINSON - ST. JOSEPH'S HOSPITAL (Level III)
Becky Elkins

LEAD AGENCY AND HUMAN RESOURCES WITHIN THE LEAD AGENCY

1. **Describe the number, position titles, and percent of full time equivalency (FTE) of all personnel within the lead agency or contract personnel who have roles or responsibilities to the trauma program.**
   State Trauma Coordinator (1.0 FTE)
   Research Analyst (.5 FTE)
   State EMS Director (.2 FTE)
   Administrative Assistant (.4 FTE)

2. **Identify other personnel resources that support the trauma program activities of the lead agency (e.g., epidemiology support from other units within the health department, public health interns)**
   State Injury Prevention Program – share information and resources between departments and they work together to assist hospitals and communities with their injury prevention education.

   Level II Trauma Centers; trauma directors (surgeons) and trauma program managers – conduct all sight visits for level IV and V Trauma Centers. The Trauma Surgeon volunteers their time for the visits and the TPM's Trauma Center gets $200.00 in reimbursement for the visits.

   The Level II Trauma Center Trauma Program Managers have been very supportive and active in the development and activities of the State Trauma System. All the level II TPM's and registrars along with the State Trauma Coordinator and Research Analyst assist the state's rural hospitals with trauma registry questions and problem solving with the registry. They assist with injury prevention ideas and resources. The Level II TPM's and their Trauma Medical Directors also consult with the rural designated and nondesignated hospitals within the state to encourage participation in the trauma system. The TPM's and State Trauma Coordinator also coordinate the Annual Statewide Trauma Conference which has been held for 10 years.

3. **Describe the adequacy of personnel resources available to the lead agency to sustain trauma program assessment, policy development, and assurance activities.**

   a. **Identify impediments or barriers that hinder system development.**

   Understaffed – *The state trauma coordinator is responsible for managing all of the Trauma System activities.*

   Funding: *There is $30,000/year from general funds that is dedicated for the Trauma System's basic operational functions. Reimbursements and incentives for hospitals are very minimal; Level II trauma surgeons volunteer time to do site visits and Level II's get minimal reimbursement for the TPM participating in site visits. The State Trauma Committee operates on a volunteer basis as do the Regional Committees. Level IV and V's get some reimbursement for ATLS and TNCC courses taken by physicians and midlevels, but no other incentives are given for being trauma designated. There are no reimbursements for uncompensated care to the Trauma Centers. Trauma centers are required to pay their own yearly trauma registry maintenance fees to participate in the State Trauma Registry.*

   Turnover of the State Trauma Coordinator
   The State Trauma Coordinator position has been open three times since 2001. There have been periods of time when this position was not filled. There is an orientation/learning time before he/she is productive.

   No Trauma or EMS Medical Director
   We don't have a Trauma or EMS Medical Director in ND. Dr. Craig Lambrecht serves as the Chief Field Medical Officer for the Department of Health. He represents the ND Chapter of the American College of Emergency Physicians on the State Trauma Committee.

   Lack of Good Statewide Data and PI
   After many years all the hospitals in North Dakota all have the same vendor for their Trauma Registries. We thought that once this happened, we would have good data to do PI with. Now we have found there are still problems. The State Trauma Coordinator and Research Analyst are addressing these problems with the vendor

   We have also identified that we do not include data from Rehab facilities.

   The Regional System is Underutilized
   The function of the Regional Trauma Committees is to work on PI. Since there is no data, the Regional Trauma Committees are not able to do this.

Voluntary Designations
North Dakota rules include voluntary designation of hospitals to become Trauma centers. Since 1995 when the rules were approved all hospitals have been encouraged by the State Trauma Coordinator and the Level II's in their region to become Trauma Centers. There are eight hospitals that are not designated.

We have a 95% Voluntary EMS System
We have a very dedicated group of EMS providers, many of whom have been volunteers for a number of years and are graying. Many ambulance services are having a difficult time recruiting new volunteers and services are in danger of closing.

Injury Prevention is not represented on the State Trauma Committee

TNCC, or similar education is not required for ED nurses in designated Trauma Centers

Lack of succession in the State Trauma Committee
There is no plan of succession for most members of the State Trauma Committee

UND School of Medicine underutilized
The UND School of Medicine and their Surgical Residency Program are underutilized in the ND State Trauma System

Major Trauma Patients are Transferred to Undesignated Hospitals
There are 8 ND hospitals that are not designated. The local volunteer BLS Ambulance services still take seriously injured patients to these hospitals.

When a Level II Trauma Center requires a transfer, in state resources at other Level II's are often not utilized.
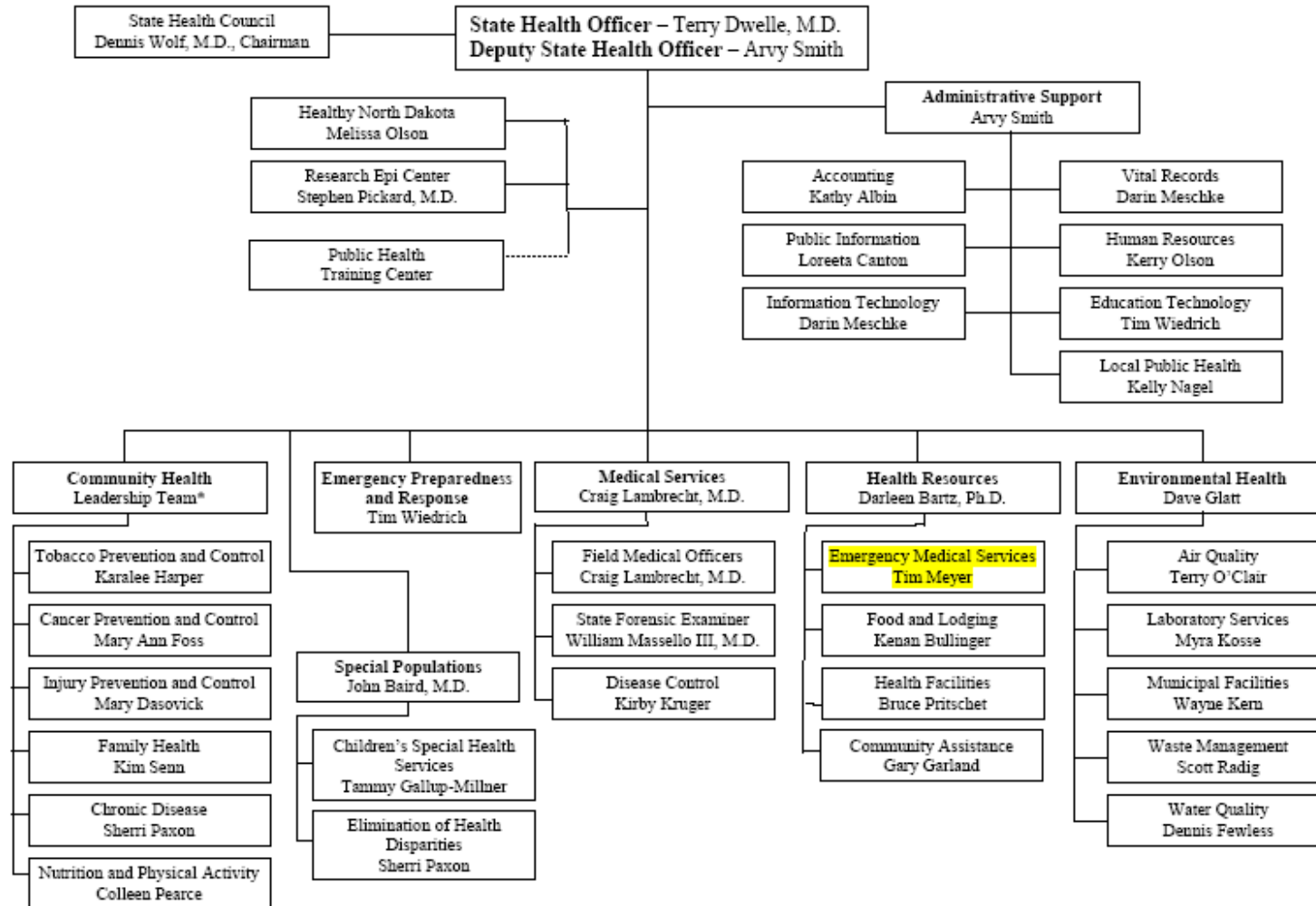
Documentation Required:

Prior to Site Visit:

- ☑ A comprehensive organizational chart that identifies the position of the lead agency within the broader governmental authority (e.g., health department).
- ☑ A job description for the trauma program manager and the trauma medical director

North Dakota Department of Health
Organizational Chart
July 2007

State Health Council
Dennis Wolf, M.D., Chairman

State Health Officer – Terry Dwelle, M.D.
Deputy State Health Officer – Arvy Smith

Healthy North Dakota
Melissa Olson

Research Epi Center
Stephen Pickard, M.D.

Public Health Training Center

Administrative Support
Arvy Smith

Accounting
Kathy Albin

Public Information
Loreeta Canton

Information Technology
Darin Meschke

Vital Records
Darin Meschke

Human Resources
Kerry Olson

Education Technology
Tim Wiedrich

Local Public Health
Kelly Nagel

Community Health Leadership Team*

Tobacco Prevention and Control
Karalee Harper

Cancer Prevention and Control
Mary Ann Foss

Injury Prevention and Control
Mary Dasovick

Family Health
Kim Senn

Chronic Disease
Sherri Paxon

Nutrition and Physical Activity
Colleen Pearce

Emergency Preparedness and Response
Tim Wiedrich

Special Populations
John Baird, M.D.

Children's Special Health Services
Tammy Gallup-Millner

Elimination of Health Disparities
Sherri Paxon

Medical Services
Craig Lambrecht, M.D.

Field Medical Officers
Craig Lambrecht, M.D.

State Forensic Examiner
William Massello III, M.D.

Disease Control
Kirby Kruger

Health Resources
Darleen Bartz, Ph.D.

Emergency Medical Services
Tim Meyer

Food and Lodging
Kenan Bullinger

Health Facilities
Bruce Pritschet

Community Assistance
Gary Garland

Environmental Health
Dave Glatt

Air Quality
Terry O'Clair

Laboratory Services
Myra Kosse

Municipal Facilities
Wayne Kern

Waste Management
Scott Radig

Water Quality
Dennis Fewless

*The six division directors share responsibility for management of the Community Health Section.

Please review these instructions before completing the PIQ.

The Position Information Questionnaire (PIQ) is used for the following purposes:

a) to classify a position into an existing class;
b) to evaluate a class to determine the pay grade.

Because the information is extremely important, it must be completely accurate. Read the instructions on the PIQ and refer to the additional instructions which follow.

An organizational chart must accompany each PIQ. The chart must show the position under review, all positions supervised (if applicable), and all positions that the position under review reports to (up to and including the agency head).

Do not use acronyms unless defined within the information provided.

PART A
IDENTIFICATION, DUTIES/RESPONSIBILITIES,

AND TASK INVENTORY

PART A will be completed by the employee unless the

position is new or vacant, in which case it would be

completed by the supervisor.

A-1 – Enter the eleven digit position code which is the primary means of identifying documents relating to a position. The first three digits are the agency code; the last eight, the assigned position number. The position number can be obtained from your personnel officer/representative or from Human Resource Management Services.

A-13 – Include a brief statement of the function of the work unit using items A-3, A-4, A-5 and a-6 as a guide. If an entry is made in A-6, describe the

Duty/Responsibility	Secretary to the Director
Examples of Tasks:	Typing correspondence

Taking dictation
Arranging appointments, etc.

Duty/Responsibility Program Administration

Examples of Tasks:	Preparing policies

Implementing policies

Reviewing application for

determining eligibility

Approving payment of

assistance funds, etc.

Duty/Responsibility Supervision of Staff

Examples of Tasks:	Determining work schedule

Counseling

Evaluating performance

Reviewing work, etc.

In the examples above, the duty/responsibility shown would most probably be only one of a number assigned to a position, each with its own set of tasks. Also, similar tasks may be reflected in different duties. An individual who has the duty to complete a particular report may show "typing the report" as a task, while the same individual will show another duty as preparing correspondence and reflect "typing" as a task.

In the classification process, the tasks are used to compare one duty to another to reflect the variety involved. The duty/responsibility will be used to compare with other positions for the purpose of grouping similar positions into the same class.

Each major duty/responsibility should be numbered consecutively beginning with duty/responsibility no. 1. This provides an easy reference in subsequent communications, updates, etc.

function of that unit; if there is no entry in A-6, use A-5, etc. These four items relate to the levels within a standard organization structure.

A-14 – This provides important information for classification purposes. There may be some difficulty in breaking down a duty or responsibility into specific tasks, but individuals should use their best judgement in completing this item. The pattern is to go from a brief, general statement of duty or responsibility to a specific statement of the tasks(s). See the examples that follow:

Use additional copies of page 2, if needed, to have adequate space to include data on all duties/responsibilities associated with this position.

A-15 – Enter the individual qualifications of the person currently occupying the position. If the position is new or vacant, leave this section blank.

Part B
WORKING ENVIRONMENT DATA
To Be Completed By Supervisor

GENERAL: The items in PART B will provide the information needed to support the level of a class. A class level will not be determined on the basis of one position (unless that position is the only one in a class) but will be based on the normal or average or the information reported for a number of similar positions.

Items in PART B are generally self-explanatory. Those that are not are explained below. Caution should be taken to consider the normal work environment. Do not report data as it may be during an excessively slow period or a peak rush period, as this may understate or overstate requirements.

It is also very important to consider the position, not the individual. How well the individual performs the duties is a matter of performance evaluation and not classification or class evaluation. The questionnaire must reflect the requirements for the position as designed by management. It is management's responsibility to determine that the duties/responsibilities and tasks being performed by the employee are those required and intended, i.e., for which management intends to compensate the employee.

B-2 – Do not overstate this item. Note the emphasis is on minimum knowledge required. It provides another way to look at knowledge levels. The emphasis is still on minimum knowledge required to do the job acceptably.

B-6 - Guidelines may be considered as policy or procedure manuals, laws, rules, desk manuals, operating instructions, etc., but do not include direct supervision that is covered elsewhere in the PIQ. NOTE: This item (as do other items) requires the supervisor to identify the specific duties/responsibilities from PART A, which reflects the choice made. The reason for this is to allow the evaluator specific examples of duties/responsibilities which can be referred to in an effort to visualize more clearly the work environment of the position.

B-13 - Refers to the authority over and amount

B-14 - This item deals with the management of other persons, not with the management/administration of programs, services, etc. For the purpose of this item, the terms 'management' and 'supervision' are used synonymously.

Identifying positions of individuals managed is required to establish management responsibility and to track changes in responsibility within work units. Cross-referencing is possible and where doubt exists, actual documents can be reviewed to determine that the management function is formally conducted. If more than ten positions are supervised directly, they should be listed on a separate sheet and attached to the PIQ.

The total included in "INDIRECT SUPERVISION" represents those individuals within the total of the work unit and subordinate work unit(s) for which overall responsibility (accountability) rests with the incumbent but the "direct' control has been delegated to a subordinate supervisor.

EXAMPLE: A section supervisor directly manages three individuals. Those three positions in turn directly supervise a total of five other positions. The incumbent in this example would be accountable for a total of eight positions - three supervised directly and five indirectly.

B-15 - If there is any doubt as to whether a working condition is unusual or hazardous, it should be listed; however, generally this item deals with conditions that place the individual in an unusually hazardous condition even when normal safety precautions are taken. Additionally, the conditions cannot be avoided in that the work must be performed as a requirement of the job.

PART C
DUTY/RESPONSIBILITY CHANGE ANALYSIS

PART C should be completed jointly by the employee and the immediate supervisor.

Items in PART C must be completed unless:
    -the position is new, or

of annual budget dollars delegated to the position. Generally the authority over funds is documented by an individual's authority to sign purchase orders, travel vouchers, etc. Commitment of funds means that when the authority is exercised, the unit, agency, State, etc., will be committed eventually to pay the funds. The commitment authority also exists, however, when a manager has the final approval to determine a salary increase, promotion, etc., which ultimately results in the expenditure of budget dollars. Note that most often the commitment of salary dollars rests with the agency head, and subordinate managers have an indirect or shared responsibility through their input to the budget proposal process or their involvement in determining who is to be promoted, receive merit increases, etc.

-the position has not been reviewed within the past five (5) years.

Although not required, completion of PART C for positions reviewed more than five years ago can provide useful information to facilitate the review.

C-2 - Provide analysis of the change to prior Duties/Responsibilities. Either a change overall to the Duty/Responsibility or significant change in task(s) making up the Duty/Responsibility.

The remaining sections of the form are self-explanatory.

A pre-approved, agency specific 'Change Analysis Form' may be used in lieu of PART C. An Organizational Chart must be included with the PIQ.

POSITION INFORMATION QUESTIONNAIRE (PIQ)
NORTH DAKOTA HUMAN RESOURCE MANAGEMENT SERVICES
SFN 2572 (3-04)

INSTRUCTIONS:
- *This Position Information Questionnaire (PIQ) is used as the basis for job analysis when determining position classifications and pay grades, essential functions, performance standards, etc.*
- *Please be completely accurate as you fill out this form; the information is extremely important. Do not use acronyms or abbreviations.*
- *An organizational chart must accompany each submitted PIQ. The chart must show this position, any positions supervised, and all positions that it reports to, up to and including the agency head.*

PIQ PART A - IDENTIFICATION, DUTIES/RESPONSIBILITIES, AND TASK INVENTORY INFORMATION

PART A SHOULD BE COMPLETED BY THE EMPLOYEE OR EMPLOYEE AND SUPERVISOR UNLESS THE POSITION IS NEW OR VACANT, IN WHICH CASE IT SHOULD BE COMPLETED BY THE SUPERVISOR.

1. Position Number	2. Type of Position: x Full Time ☐ Part Time (Full Time Equivalent Percentage _____%)

3. Department, Agency or Institution North Dakota Department of Health	4. Division or Equivalent Health Resources Section
5. Section or Equivalent Division of Emergency Medical Services	6. Unit or Equivalent

7. Work Address (Room No. & Building) Judicial Wing of Capitol Room 309	8. Street Address & City 600 East Boulevard Avenue, Bismarck ND	9. Telephone No. 701-328-2388
10. PIQ Prepared By ☐ Employee x Supervisor/Management	11. Name & Classification of Supervisor Tim Meyer, Director of Emergency Medical Services	

12. Name of Employee Vacant

13. <u>What is the function, product, or service of the work unit referred to in #6 above? (If #6 is blank, provide the function, product, or service for blocks 5 or 4, as appropriate.)</u>

- Serve as the lead Emergecny Medical jServices (EMS) agency producing the following work outputs:
- Establish EMS sytem design, administration and operational policies
- License ambulance services and certify quick response units and rescue services
- Update and maintain training, testing and certification programs for Emergency Medical Services personnel
- Administer an EMS grant program
- Provide technical assistance to local EMS services regarding patient care issues
- Operate an EMS personnel data system
- Operate an ambulance run report data system
- Provide critical incident stress debriefing services to public safety entities engated in EMS
- Conduct emergency vehicle operations courses for ambulance personnel
- Implement and maintain a statewide trauma system

14. DUTIES/RESPONSIBILITIES/TASKS

- *Provide a general statement of each major duty or responsibility you have and list the task(s) involved in accomplishing each one. Indicate the percent of time that is spent on each major duty or responsibility and the frequency of each.*
- *FREQUENCY should be coded as follows: D=Daily, W=Weekly, M=Monthly, Q=Quarterly, A=Annually, SA=Semi-annually.*
- *Attach additional copies of page 2, if needed, for adequate space to include all information on your duties and responsibilities.*

DUTY/RESPONSIBILITY NO. 1		Statement of duty/responsibility Conduct designation of Trauma Centers
Percent 15	Frequency W	

Tasks involved in fulfilling above duty/responsibility

- Train and maintain four regional level IV and V Trauma Center Designation Teams comprised of physicians and nurses
- Receive Trauma Center applications, conduct a paper review and based upon the paper review decide if the application should be rejected or if an on site designation visit should be scheduled
- Coordinate the designation visit or communicate the application rejection and assist the facility in obtaining compliance
- Remove all information from written applications which indicates the identiy of the facility
- Present applications to the State Trauma Committee for review and generate Trauma Center designation rejection notices
- Provide technical assistance to Trauma Center regarding standards and compliance

PIQ Part A - 14. Duties/Responsibilities/Tasks **(continued)**

DUTY/RESPONSIBILITY NO. 2		Statement of duty/responsibility Maintain a statewide trauma registry and trauma quality improvement process
Percent 40	Frequency D	

Tasks involved in fulfilling above duty/responsibility

- Receive and process electronic trauma registry data submission from hospitals
- Generate trauma incidence reports which include the quantiy and types of trauma
- Create severity reports using revised trauma scoring and injury servertiy scoring
- Generate preventable trauma death reports
- Conduct quality improvement audits
- Review ambulance run report data and trauma registry data and identify outliers based on audit filters
- Analyze hospital and prehospital trauma outlier information and present the analysis to the regional trauma committees for quality improvement action
- Monitor ourlier corrective activity and feedback improvements or degradation

DUTY/RESPONSIBILITY NO. 3		Statement of duty/responsibility Provide trauma system technical assistance to emergency medical services organizations and hospitals
Percent 40	Frequency D	

Tasks involved in fulfilling above duty/responsibility

Respond to requests for technical assistance from hospitals, ambulance services, quick response units and rescue services for the following:

- Trauma transport plans
- Trauma Triage
- Interfacility transfer protocols
- Major trauma definition and trauma code activation protocols

DUTY/RESPONSIBILITY NO. 4		Statement of duty/responsibility Coordinate and staff state and regional trauma committee meetings
Percent 5	Frequency W	

Tasks involved in fulfilling above duty/responsibility

- Develop and distribute meeting agendas, meeting nocitecs, and minutes
- Secure meeting facilities and equipment
- Generate correspondence and other communications resulting from the meetings

DUTY/RESPONSIBILITY NO.	Statement of duty/responsibility

Percent	Frequency	

Tasks involved in fulfilling above duty/responsibility

DUTY/RESPONSIBILITY NO.	Statement of duty/responsibility

Percent	Frequency	

Tasks involved in fulfilling above duty/responsibility

15. PERSONAL QUALIFICATIONS/CREDENTIALS OF CURRENT EMPLOYEE
Provide the education level, degree(s), major area of study, certifications, and number of years experience. This information is used to develop or revise classes, **not** to classify a position or to evaluate an employee.

16. Use this space for comments on any of the foregoing items, if space provided above did not allow you to adequately express your position.

17. The information in PART A is a true, accurate, and complete description of my duties and responsibilities.		
	Signature of Employee	Date

PIQ PART B - WORKING ENVIRONMENT - to be completed by supervisor

- *Report what is considered as a norm for the position, not as it may be during excessively slow or busy periods. Consider the position, not the individual or performance level. It is management's responsibility to determine duty and responsibility assignments and ensure those being performed are those required and intended.*
- *Review Part A to assure it is accurate and complete. The supervisor who signs the form accepts responsibility for the accuracy and completeness with which Parts A and B describe this position. If Part A does not express your understanding of the duties/responsibilities assigned to the position, qualify or elaborate in Item 1 below. Do not change entries the employee has made in Part A.*

1. Supervisor's additions and/or exceptions to Part A - Duties, Responsibilities, and Task Inventory

2. TECHNICAL KNOWLEDGE REQUIREMENT - **Minimum** knowledge required to perform adequately in position, reasonably attained only by (check all that apply):

a. ON THE JOB TRAINING	☐ six months or less X six months to a year ☐ more than a year

b. FORMAL EDUCATION/ TRAINING	☐ eight years or less ☐ high school diploma or GED X college level ☐ 1 year ☐ 2 year ☐ 3 year X 4 year ☐ graduate level ☐ 1 year ☐ 2 year ☐ post-graduate degree

Type of degree required (Bachelor's, Associate, etc.) Registered Nurse, BSN	Subject knowledge or major required ☐ General X Specialized (specify) Trauma care, and trauma system s development ☐ Vocational (specify)

c. WORK EXPERIENCE IN ADDITION TO FORMAL EDUCATION/ TRAINING	☐ Task Related	☐ less than 1 yr X one year ☐ two years ☐ three years ☐ more than 3 years	☐ Management Related	☐ one year ☐ two years ☐ three years ☐ more than 3 yrs

d. LICENSE/CERTIFICATION required to perform any duties/	(List or explain): North Dakota Registered Nurse

3. TECHNICAL KNOWLEDGE REQUIREMENT RELATIVE TO NATURE OF WORK *Assume that orientation to organization, standard instructions, and initial on-the-job training have been accomplished*	Minimum knowledge required to perform adequately in this position will require knowledge of (check one):
	☐ relatively simple, routine, repetitive tasks;
	☐ basic, common rules, procedures, practices, or operation;
	☐ specialized rules, procedures, practices, or operations acquired through substantial training or experience;
	☐ rules, procedures, practices or operations acquired through considerable specialized training or experience;
	X basic principles, concepts and methodology of a professional or administrative occupation;
	☐ advanced principles, concepts and methodology of a professional/administrative field acquired through substantial work experience or additional study at graduate level;
	☐ mastery of specialized field requiring knowledge obtainable only through extensive post masters level education
4. SPECIFIC SKILLS REQUIRED	Requires operation of: (check all that apply)
	X standard office equipment such as telephone, intercom, photocopier, calculator, dictating machine, personal computer, etc.
	☐ specialized equipment such as a cash register, business machines, laboratory equipment, motorized heavy equipment, etc.
	(List equipment):

PIQ PART B (continued)

5. INTERPERSONAL SKILLS REQUIRED	Requires: (check one)
	☐ common courtesy in dealing with clients, coworkers, general public, etc.
	X interpersonal skill in dealing with others to encourage participation, cooperation, compliance, etc.
	☐ ability to motivate or convince others, and/or change own behavior, to meet specific requirements of organizational objectives
6. GUIDELINES	Guidelines are: (check one)
	☐ specifically provided for each task
	☐ specifically provided for each duty and responsibility
	☐ specifically provided but require individual to apply appropriate guidelines to appropriate duties
	X generally available but require some judgment in selecting and applying most appropriate ones
	☐ generally available but require interpretation or adaptation for application to assigned duties
	☐ generally available but require significant analysis to determine application to a variety of situations
	☐ generally available, broadly stated, e.g., policy and legislation requiring extensive interpretation, analysis and determination of applicability to a variety of situations
Give examples of guidelines utilized by position in performance of work (policies, rules, laws, desk manuals, etc.):	
7. MENTAL CHALLENGES CREATED BY WORK STRUCTURE	Work consists of: (check one)
	☐ standardized tasks, generally repetitive and directly related; little or no choice in deciding what needs to be done
	☐ duties involving related steps, processes or methods. Decisions involve choices among easily recognizable situations or alternatives
	X different and unrelated processes and methods. Decisions regarding what needs to be done involve analysis of the subject or issues and selection from a variety of approaches
	☐ varied duties requiring many different and unrelated processes and methods applied to a broad range of activities or requiring a substantial depth of analysis
	☐ broad functions and processes requiring continuing efforts to establish procedures to resolve problems
Give examples of analysis required:	

8.	METHODS AND PROCEDURES FOR PERFORMING WORK ASSIGNED THIS POSITION	Methods and procedures for performing work of this position are determined by: (check one) ☐ lead worker/supervisor in all cases ☐ worker for recurring activity, lead worker/supervisor for non-recurring activity X worker for all activity except the most unusual or problem situations ☐ worker in all cases ☐ other (specify) _____
9.	OBSERVATION OF WORK ACTIVITY	Work activity of this position is observed by: (check one) ☐ lead worker/supervisor located within the immediate work area ☐ lead worker located in the immediate work area and supervisor located in the general work area X supervisor located in the general work area ☐ supervisor located at location other than general work area (specify)_____ ☐ other (specify) _____ Work activity is observed: (check one) ☐ daily ☐ weekly ☐ Other (specify) _____
10.	ASSIGNMENT OF WORK	Work is assigned this position by identifying: (check one) ☐ work to be done and defining tasks involved X work to be done without defining tasks involved ☐ overall organizational goals and objectives and defining specific share of responsibility ☐ overall organizational goals and objectives without defining specific share of responsibility ☐ other (specify) _____
11.	REVIEW OF COMPLETED WORK	Completed work of this position is reviewed by: (check one) ☐ lead worker/supervisor upon completion of a specific segment ☐ lead worker/supervisor at periodic unscheduled intervals or upon completion of group segments X supervisor upon completion of a specified stage, objective, milestone, or other established review point ☐ supervisor in periodic discussion, staff meetings, or incidental contacts ☐ supervisor through analysis of outcome of work activity as compared to previously established goals, objectives, etc., of the work unit ☐ supervisor through analysis of outcome of work activity as compared to overall organizational goals and objectives ☐ other (specify) _____

PIQ PART B (continued)

12.	EFFECT ON DECISIONS	In relation to decisions made regarding the work unit goals and objectives, assigned work of this position: (check one) ☐ produces a product or provides a service used by others in making decisions X produces an analysis, recommendation, or significant advice used by others in making decisions ☐ produces decisions on significant portions of the overall goals and objectives of the work unit; decisions may be made in conjunction with the work of others ☐ involves making final decisions and provides control of the outcome of those decisions
13.	BUDGET RESPONSIBILITY	Refers to the authority of this position over and the amount of annual budget dollars delegated to the position, generally documented by an individual's authority to sign purchase orders, travel vouchers, etc. and/or the approval of a salary increase, promotion, etc., which ultimately results in the expenditure of budget dollars. Note that most often the commitment of salary dollars rests with the agency head, and subordinate managers have an indirect or shared responsibility through their input to the budget proposal process or their involvement in determining who is to be promoted, receive merit increases, etc.

Responsibility for Commitment of Budget Dollars	$0	Up to $500,000	$500,000 to $10,000,000	$10,000,000 to $1 Billion	Over $1 Billion
No budget responsibility		X			
Indirect advisory effect					
Shared decision making with higher level approval					
Direct obligation authority					

14.	RESPONSIBILITY FOR MANAGE-MENT OF OTHER PERSONS **Attach organizational chart showing positions.**	Individual's responsibility for management of other **persons** is: (check all that apply) ☐ none ☐ determines goals and objectives of work unit ☐ divides total work load of the work unit into segments and determines who will perform each segment ☐ completes a formal (written) evaluation of persons in the work unit ☐ trains and/or motivates persons in the work unit ☐ holds staff advisory position which does not lend itself to management of others

RESPONSIBILITY FOR DIRECT SUPERVISION OF THE FOLLOWING POSITIONS
(Include temporary, seasonal, contingent, etc.)

POSITION NUMBER	CLASSIFICATION TITLE OF POSITION OR PERSON WHO IS SUPERVISED	FTE %

INDIRECT SUPERVISION (Indicate the total number of positions in the work unit and subordinate work units for which overall responsibility rests with this incumbent but "direct" control is delegated to a subordinate supervisor. ⟶

15. HAZARDOUS WORKING CONDITIONS	Indicate unusual or hazardous working conditions related to performance of duties, even when normal safety precautions are taken:
	Indicate precautionary measures taken to avoid those unusual or hazardous working conditions:
	Frequency of occurrence of unusual or hazardous working conditions: _____ hours per day; or, _____ hours per week; or, other _____

All information on this Position Information Questionnaire is true and accurate and is a complete description of the duties and responsibilities assigned to the position.

_____   _____
Supervisor's Signature   Date

All information on this Position Information Questionnaire is a true and accurate reflection of the duties and responsibilities assigned to the position in relation to the overall goals and objectives of the agency.

_____   _____
Signature of Agency Head or Designee   Date

PIQ PART C - DUTY/RESPONSIBILITY CHANGE ANALYSIS
Items in this section <u>must</u> be completed unless the position is new or the position has not been reviewed within the past five years.
The purpose of Part C is to identify changes in duties and/or responsibilities of the position. This part should be completed jointly by the employee and supervisor to ensure complete consideration of the magnitude of changes in the job.

1-Position Number	Name:	Current Classification:

2-Explain briefly why the changes were made (i.e. Improve operations, new federal requirements, statutory changes, etc.):

3-List the Duties/Responsibilities that have changed and explain the type and extent of change. (Attach additional sheets if necessary.)

PREVIOUS DUTIES/RESPONSIBILITIES	CURRENT DUTIES/RESPONSIBILITIES

4-Have new duties been taken from other positions? If so, identify duties and positions. ☐ Yes   ☐ No

Have previous duties been assigned to other positions? Identify duties and positions.

☐ Yes   ☐ No

PIQ PART C (continued)

5-Do new duties require additional technical knowledge and skills? If yes, explain below:

☐ Yes   ☐ No

6-Do new duties require more decision making responsibility? If yes, what decisions are made without supervisory approval?

☐ Yes   ☐ No

What decisions require supervisory approval?

7-Do new duties include supervisory responsibility? If yes, explain below:

☐ Yes   ☐ No

8-Do new duties require additional judgment and/or creativity? If yes, explain below:

☐ Yes   ☐ No

9-Do new duties increase the complexity of the job? If yes, explain below:

☐ Yes   ☐ No

The information indicated on this form is a true, accurate, and complete description of the change in duties/responsibilities.

| Employee | Date | Supervisor | Date |

1. **Describe the process for the development or revision of the trauma system plan.**
   The ND Trauma Rules are based on our trauma system plan. When the State Trauma Committee, the State Trauma Coordinator, and the DEMS Director agree that changes are needed to the State Trauma Rules, they are drafted, discussed, agreed on, and taken to the State Health Council for approval. Following approval there are public and legislative hearings. If approved the changes become Administrative Rule.

   We have a Trauma System Plan that was written in 1995. We are anticipating suggestions for making the plan current, will be one of the outputs that result from this visit. Based on your recommendations, this would be one of the State Trauma Committee and Division of Emergency Services top priorities.

   In 2004 a group of Level II Trauma Program Managers and the State Trauma Coordinator developed the North Dakota Trauma Guidelines Manual to assist the Trauma Centers and State Trauma Committee in system operations.

   Our system plan has evolved through changes in our trauma rules and guidelines.

   a. **Include the role of advisory and stakeholder groups in the process**.
      The need for change usually is identified during State Trauma Committee meetings. Members of the State Trauma Committee may be called upon to testify at the hearings.

   Is there on-going assessment of trauma resources and asset allocation within the system?
   During the Level IV and V site visits the reviewers assesses the hospital's need for additional education, equipment, and other resources. This is included in their report and discussed at the State Trauma Committee and recommendations are made to the Trauma Center.

   When we were creating the North Dakota Trauma System, having 4 regions was a natural fit and went along with the EMS Regions that had been in place for a number of years. After a great deal of discussion it was decided not to limit the number of Level II Trauma Centers in each region. From the beginning all hospitals have been encouraged to participate as a Trauma Center.

   We have not assessed the distribution of population and types of trauma. We are still working on getting state wide trauma data from the Trauma Registry.

North Dakota currently has 2 helicopter air ambulances operating, one in Fargo and one in Minot. MeritCare Life Flight in Fargo covers the eastern half of the state. NorthStar CriticCare from Trinity covers much of the western part of the state. There is some overlap to some areas, and lack of service in others, particularly in the area around Bismarck.

There are 2 fixed wing air ambulances in North Dakota, MeritCare Life Flight in Fargo and Medcenter One in Bismarck. These services cover the entire state.

2. **Describe the process used to determine trauma system standards and trauma system policies**.
   When ND drafted the Trauma System Plan in the early to mid 90's it was decided to use the American College of Surgeons, Committee on Trauma, as the standard for Trauma Center designation.

   The ND Trauma Plan was based on HRSA's Model Trauma Care System Plan, September 30, 1992.

   a. **How are they reviewed and evaluated?**
      When the American College of Surgeons, Committee on Trauma releases a new edition of the Resources for Optimal care of the Injured Patient the Level II and III's are expected to update and review their standards.

      The Level IV and V standards are discussed at the State Trauma Committee, often during the Designation review. When it is determined that changes need to be made, they are made in by the appropriate method in the Administrative Rules or in the Guidelines.

   b. **What standards and policies exist for special populations, including rural and frontier regions?**
      There are no specific policies/standards for special populations in place.

      Much of ND is considered rural and frontier and includes small hospitals. Many of these small hospitals have become Critical Access Hospitals and do not always have a physician available. At times they are staffed with a midlevel practitioner. We developed a Level V Trauma Center, which allows midlevels current in ATLS to assume the team leader role, so these hospitals may be included in the State Trauma System.

   c. **How are specialized needs addressed, including burns, spinal cord injury, traumatic brain injury, and reimplantation?**
      Our Level III, IV, and V Trauma Centers are required to have transfer agreements with a Level II Trauma Center. The Level II Trauma Centers are able to care for many spinal cord, traumatic brain injuries, and some

burn injuries. For reimplantation and injuries that the Level II Trauma Centers aren't comfortable treating, they transfer them to Level I Trauma Centers they have transfer agreements with.

Documentation Required:

Prior to Site Visit:

☑ Copy of the written trauma system plan

- The complete trauma system plan document will be available on site.

Executive Summary
North Dakota Trauma System Care Plan
September 1993

Since early 1993, a Trauma Advisory Committee (TAC) of the North Dakota State Health Council has been developing a statewide trauma care system plan. The Trauma Advisory Committee represents the major health organizations in the state, including the North Dakota Medical and Hospital Associations, the North Dakota chapters of the American College of Emergency Physicians and the American College of Surgeons, the North Dakota Nurses Association, the North Dakota EMT Association, and Native American representation.

The Trauma Advisory Committee, in the spring of 1993, published a summary for public comment of the proposed trauma care system plan. Public hearings on the proposed plan were needed in May and June in Bismarck, Fargo, Grand Forks, and Minot.

The North Dakota Statewide Trauma Care System Plan includes the following major elements:

I.   REGIONALIZATION OF TRAUMA SYSTEM

A regionalized system development approach will be taken to develop a trauma care system in the state. This will include appointment of trauma system committees to oversee trauma care issues and the implementation and operation of the system in each region. Each committee will include both prehospital and hospital members from each respective region. The statewide trauma care system will include regions around the four major cities in the state, i.e., Bismarck, Fargo, Grand Forks, and Minot.

II. CITIZEN ACCESS AND EMERGENCY DISPATCH

The trauma care system will include emphasis on implementing 9-1-1, the universal emergency telephone number, for 100% of the population of North Dakota and the training of emergency dispatch personnel handling EMS calls to provide pre-arrival instructions to callers. Also, the plan will encourage the radio dispatch of EMS personnel and vehicles, including those in communities served by volunteers, in order to expedite the emergency response.

III.   QUICK RESPONSE UNIT (QRU) NETWORK

The trauma care system plan supports development of Quick Response Unit organizations in all urban and rural areas of the state, in order to achieve an emergency response time objective of 5 minutes in urban areas and 10 minutes in rural areas for initial EMS response to 90% of life-threatening emergency cases.

IV.   GROUND/AIR EMS TRANSPORT UNIT NETWORK

The trauma care system will support placement of ground and air EMS transport units in a network throughout the state to meet defined response time objectives of 10 minutes in urban areas and 20 minutes in rural areas in 90% of life-threatening cases for ground units. Also, the plan supports the provision of air medical response capability to reach 90% of emergency cases needing secondary transfers to trauma centers within the system in less than 90 minutes.

V.   RESCUE-EXTRICATION UNIT NETWORK

The trauma care system will support the development of rescue-extrication units in all areas of the state to provide basic rescue-extrication capability within 20 minutes in 90% of extrication situations, and heavy rescue-extrication service within 30 minutes in 90% of extrication situations as needed.

VI.   DISTRICT TRAUMA TRANSPORT PLANS

Each regional trauma system area will include trauma districts that correspond to ambulance service areas. Trauma transport plans will be developed for all districts by the ambulance service and its medical director, and then be submitted to the regional trauma committee for approval using standards from the Division of Emergency Health Services (DEHS). The trauma transport plan concept includes the provision of on-line medical direction 24-hour physician staffed emergency departments.

VII.   DEFINITION OF THE MAJOR TRAUMA PATIENT

A standardized, statewide definition, for prehospital purposes within the system, for the major trauma patient will be issued by the Division of Emergency Health Services (DEHS) to all EMS provider organizations in the state. This definition and the associated criteria will be used by EMS personnel to declare that they have a major trauma situation. Declaration of major trauma situations by prehospital personnel will result in the activation of the trauma care system at the local and/or the regional levels.

VIII.   TRAUMA PROTOCOLS

Standardized prehospital protocols, at the basic and advanced life-support levels, will be issued for triage, treatment and transport of trauma patients, along with protocols for the inter-hospital transfer of trauma patients.

IX.   RURAL TRAUMA INCIDENTS – STATE RADIO CONTACT

A standard protocol will be issued by DEHS for rural trauma districts in the state. The protocol will include a provision that when an EMS unit arrives at the scene of a major trauma case in a rural area, the EMS personnel will contact State Radio and declare they have a major trauma case to activate the trauma system at the local and regional levels. The State Radio communications center will use standardized procedures for each of the identified trauma districts in the state to carry out trauma system activation procedures. State Radio will also use radio-telephone patch capability to obtain on-line medical direction for EMS responders when appropriate and when identified in the EMS district trauma system plan.

X.   PREHOSPITAL TRAUMA DATA

As part of the Division of Emergency Health Services (DEHS) EMS run report (scannable form) analysis system, prehospital providers will submit run sheets or transfer run report data by electronic means to DEHS. The resulting data will then be incorporated into the overall trauma care system data analysis and the quality improvement (QI) process carried out by the regional trauma committees.

XI.   HOSPITAL TRAUMA DATA

The trauma plan includes the provision that all levels of trauma facilities in the state collect specified trauma register data points. A statewide and regional hospital trauma quality improvement process will take place involving physicians, nurses and other hospital provider personnel.

XII.   HOSPITAL TRAUMA FACILITY DESIGNATION

American College of Surgeons (ACS) criteria will be utilized to designate hospital trauma facilities in the state. For levels I, II, and III ACS verification will be required. An instate process will be used for level IV (i.e. rural trauma hospital) facilities. DEHS oversight will also occur. The requirements will range from ATLS training for physicians who provide care for trauma patients, to participation in the hospital trauma data system. Major trauma facilities will be required to fill certain defined roles in the system, including EMS physician medical direction, outreach education, quality improvement and other similar regional trauma system programs. Each facility that voluntarily decides to participate in the North Dakota statewide trauma care system will be required to develop a trauma teach approach to meet the patient upon arrival in the emergency department. Only rural trauma facilities (level IV) will not be required to have surgical capabilities.

1. **What is the trauma system's collaboration and integration with EMS, public health, and emergency management and programs such as:**
    On a local level most of the Trauma Centers are integrated with EMS, public health, and emergency management. The State Trauma Committee has representation from many of these disciplines involved, but not integrated.

    a. **prevention programs**
        On a statewide level, the ND Trauma Foundation's Pre-Conference Workshop for Trauma Coordinators has included an injury prevention topic for several years.

        Locally there are many opportunities for Trauma Centers to collaborate and integrate with EMS, public health, and emergency management, including:
        - *Infant/child car seat checks, often held at auto dealerships and body shops*
        - *Bike rodeos*
        - *Summer safety programs*
        - *Parish nurses*
        - *Falls prevention program for the elderly*
        - *Be Amazed program that targets teens*
        - *Other Safe Community activities*
        - *Farm safety programs for kids*

    b. **mental health**
        Trauma Centers provide referrals to Psychiatric Services and Drug and Alcohol Treatment for trauma patients on a local level. Drug and alcohol treatment programs are part of the Safe Community groups.

        Trauma Centers have been involved in the areas that they serve to reduce suicide rates. They have also had speakers at their EMS Appreciation Banquets speak about suicide prevention.

    c. **social services**
        Trauma Center's social workers are involved with placement of trauma patients and services after discharge from the hospital.

        Community social service groups, such as Homeless Coalitions are involved with local Safe Community Coalitions.

d. law enforcement
In 2007 Trauma, EMS, Law Enforcement, and public health all teamed up to try and change the ND Seat Belt Law from a secondary to standard enforcement.

Law enforcement officers, local, state, and federal, are trained to activate the ND Trauma System by calling for a ground ambulance and/or helicopter.

All North Dakota Law Enforcement Officers become First Responders at their training at the ND Law Enforcement Academy. Maintaining their certification is up to the individual officer and his/her employer. The ND Highway Patrol Officers are required to maintain their certification.

Dive Rescue Services are associated with and often sponsored by law enforcement agencies.

SANE nurses in Emergency Departments work closely with law enforcement in sexual assault cases.

e. child protective services
Three of the Level II Trauma Centers in the state are represented on the Statewide Child Fatality Review Panel.

Trauma Centers are observant looking for cases of suspected child abuse and taking appropriate steps to protect the child. Many of the Trauma Center's Trauma Committees serve as a back up for this, as it is discussed at the QI/PI meetings that suspected abuse has been reported.

f. public safety (e.g., fire, life guard, mountain rescue, and ski patrol)
Many of these organizations are part of the local Safe Community Coalitions.

The CERT Program is active in ND.

There is a Ski Patrol Unit out of Bismarck that is licensed as a Quick Response Unit and is trained to activate the Trauma System.

Documentation Required:

Prior to Site Visit:

☑ No additional documentation required

On-Site:

☑ No additional documentation required

1. **How does the lead agency track and analyze internal trauma system finances?**
   Financial budget reports are generated by the accounting division within the Department of Health and are available electronically to approved department personnel. These reports are regularly accessed and reviewed by the State Trauma Coordinator and EMS Director on regular intervals and adjustments can be made to the budget if deemed necessary.

   a. **How does the advisory committee participate in the financial review process?**
      The State Trauma Committee has not been involved in the budget process.

   b. **How frequently are trauma system financial reports published?**
      The ND Department of Health uses a standardized accounting system used by the state agencies for state expenditures. It is not linked throughout the health care delivery system, such as with EMS or hospitals within the state. Trauma system financial reports are produced monthly/quarterly by the ND Department of Health Accounting Division to the State Trauma Coordinator and EMS director to review.

   c. **Which financial data are reported (lead agency data, health facility data, or both)?**
      Currently reports are generated from lead agency data only.

2. **What is the lead agency's budget for the trauma system?**

   NORTH DAKOTA TRAUMA SYSTEM BUDGET 08/01/2007 – 07/31/2008 EMS GENERAL FUNDS
   - *State Trauma Coordinator (includes salary/benefits) - $53,000*

   EMS GENERAL FUNDS ALLOCATED SPECIFICALLY FOR TRAUMA
   $30, 000/year
   - *Out-of-state Travel - $5,000*
   - *In-State Travel - $4,500*
   - *Printing/Duplication/Mailings - $5,500*
   - *Office Supplies - $1,000*
   - *Communications and Meetings - $5,000*
   - *Trauma Registry Yearly Support - $9,000*

DEPARTMENT OF TRANSPORTATION GRANT
ATLS/TNCC Reimbursement - $17,000
Research Analyst (Responsible for both EMS and Trauma Data) - $101,746.96
(total includes salary/benefits and operating expenses)

Other expenses such as land phone and office space rental are budgeted within the EMS general budget.

3. **What is the source of funding available to support the development, operations, and management of the trauma system (e.g., general funds, dedicated funds)?**
Trauma is not a line item appropriation in the Health Department Budget.

The State Trauma Coordinator salary is funded by EMS general funds and operations is supported by general funds allocated in the amount of $30,000/year towards the trauma system.

The Department of Transportation grants fund the Research Analyst position including salary and operations, ATLS and TNCC reimbursement for our Level IV, V and non designated hospital physicians and midlevels, and reimbursement to the Level II hospitals for trauma designation site visits conducted by the TPMs.

4. **What financial incentives and disincentives exist to encourage trauma center participation in the trauma system?**
There are reimbursements from Medicare for trauma activations when the hospital is designated as a trauma center. North Dakota BCBS has also recently approved this reimbursement to designated Trauma Centers.

There is also partial reimbursement to Level IV and V hospitals and non-designated trauma hospitals for physicians and midlevels to participate in TNCC and ATLS courses.

The North Dakota Flex Program administered by the University of North Dakota Center for Rural Health, School of Medicine and Health Sciences has offered a grant in the amount of $9,000.00 for three non-trauma designated critical access hospitals to become trauma designated by August 2008. The goal of the flex program is to offer this grant again in 2009 for three more hospitals. At the time of the trauma system site visit we may be able to provide the reviewers with a list of CAH that have submitted an application.

    a. **Specifically include arrangements for uncompensated and under-compensated care**.
       There are none.

Documentation Required:

Prior to Site Visit:
- ☑ A copy of the lead agency's budgets, identifying line items directly related to goals and objectives of the trauma plan
- ☑ A recent trauma system financial report

EMERGENCY MEDICAL SERVICES 12338
Expenditure Summary for Grant Period 7/1/07 to 6/30/09

	Appropriation Budget	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jul-07 to Dec-07	Jan-08 to Jun-08	Jul-08 to Dec-08	Exp To Date	Balance Remaining
Salaries	$ 277,000.00	$ 9,775.00	$ 9,860.21	$ 9,647.51	$ 9,679.24	$ 9,775.00	$ 9,775.00	$ 58,511.96	$ -	$ -	$ 58,511.96	$ 218,488.04
Fringe Benefits	113,600.00	3,957.88	3,978.34	3,917.51	4,082.63	3,951.52	3,978.43	23,866.31	-	-	23,866.31	89,733.69
Travel	60,750.00	-	1,891.58	616.29	811.85	2,284.53	837.64	6,441.89	-	-	6,441.89	54,308.11
Communications	28,900.00	-	611.71	683.76	613.89	680.84	552.86	3,143.06	-	-	3,143.06	25,756.94
Supplies	62,000.00	-	2,275.44	2,451.69	4,321.17	1,155.88	581.30	10,785.48	-	-	10,785.48	51,214.52
Office Space	10,500.00	-	-	-	-	-	-	-	-	-	-	10,500.00
Equipment	6,500.00	-	-	-	-	-	-	-	-	-	-	6,500.00
Other	166,950.00	1,000.00	41.51	-	2,687.07	8,810.90	1,075.05	13,614.53	-	-	13,614.53	153,335.47
Professional fees	22,450.00	-	-	-	2,000.00	31,082.60	9,500.00	11,257.60	-	-	11,257.60	11,192.40
Grants	1,240,000.00	5.00	91,900.00	157,525.00	71,125.00	31,875.00	5,075.00	357,505.00	-	-	357,505.00	882,495.00
Total Direct Cost	$ 1,988,650.00	$ 14,737.88	$ 110,558.79	$ 174,841.76	$ 95,320.85	$ 89,616.27	$ 31,375.28	$ 485,125.83	$ -	$ -	$ 485,125.83	$ 1,503,524.17
Indirect Costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Costs	$ 1,988,650.00	$ 14,737.88	$ 110,558.79	$ 174,841.76	$ 95,320.85	$ 89,616.27	$ 31,375.28	$ 485,125.83	$ -	$ -	$ 485,125.83	$ 1,503,524.17
General	$ 1,688,650.00	$ 14,737.88	$ 104,608.79	$ 174,841.76	$ 86,695.85	$ 85,566.27	$ 29,800.28	$ 496,250.83	$ -	$ -	$ 496,250.83	$ 1,192,399.17
Special	300,000.00	-	5,950.00	-	8,625.00	4,050.00	1,575.00	20,200.00	-	-	20,200.00	279,800.00
Total Costs	$ 1,988,650.00	$ 14,737.88	$ 110,558.79	$ 174,841.76	$ 95,320.85	$ 89,616.27	$ 31,375.28	$ 516,450.83	$ -	$ -	$ 516,450.83	$ 1,472,199.17

EMS - STATE TRAUMA PROGRAM   12338-03

Expenditure Summary for Grant Period 7/1/07 to 6/30/09

	Appropriation Budget	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jul-07 to Dec-07	Jan-08 to Jun-08	Jul-08 to Dec-08	Exp To Date	Balance Remaining
Salaries	$ 75,000.00	$ 3,096.00	$ 3,096.00	$ 3,096.00	$ 3,096.00	$ 3,096.00	$ 3,096.00	$ 18,576.00	$ -	$ -	$ 18,576.00	$ 56,424.00
Fringe Benefits	29,000.00	1,178.98	1,180.89	1,179.94	1,178.98	1,178.98	1,190.83	$ 7,088.60	$ -	$ -	$ 7,088.60	21,911.40
Travel		-	-	-	-	986.02	307.45	$ 1,293.47	$ -	$ -	$ 1,293.47	(1,293.47)
Communications	3,200.00	-	104.69	169.99	138.22	111.02	98.28	$ 622.20	$ -	$ -	$ 622.20	2,577.80
Supplies	4,000.00	-	75.40	144.66	3,024.14	436.20	41.69	$ 3,722.09	$ -	$ -	$ 3,722.09	277.91
Office Space		-	-	-	-	-	-	$ -	$ -	$ -	$ -	-
Equipment		-	-	-	-	-	-	$ -	$ -	$ -	$ -	-
Other		-	-	-	-	7,375.00	280.00	$ 7,655.00	$ -	$ -	$ 7,655.00	(7,655.00)
Professional fees	22,450.00				2,000.00	3,257.60	6,000.00	$ 11,257.60	$ -	$ -	$ 11,257.60	11,192.40
Grants		-	-	-	-	-	-	$ -	$ -	$ -	$ -	-
Total Direct Cost	$ 133,650.00	$ 4,274.98	$ 4,456.98	$ 4,590.59	$ 9,437.34	$ 16,440.82	$ 11,014.25	$ 50,214.96	$ -	$ -	$ 50,214.96	$ 83,435.04
Indirect Costs		-		-	-	-	-	$ -	$ -	$ -	$ -	-
Total Costs	$ 133,650.00	$ 4,274.98	$ 4,456.98	$ 4,590.59	$ 9,437.34	$ 16,440.82	$ 11,014.25	$ 50,214.96	$ -	$ -	$ 50,214.96	$ 83,435.04
General	$ 133,650.00	$ 4,274.98	$ 4,456.98	$ 4,590.59	$ 9,437.34	$ 16,440.82	$ 11,014.25	$ 50,214.96	$ -	$ -	$ 50,214.96	$ 83,435.04
Special	-	-	-	-	-	-	-	$ -	$ -	$ -	$ -	-
Total Costs	$ 133,650.00	$ 4,274.98	$ 4,456.98	$ 4,590.59	$ 9,437.34	$ 16,440.82	$ 11,014.25	$ 50,214.96	$ -	$ -	$ 50,214.96	$ 83,435.04

50,214.96	**Accounting Reports**
0.00	**Difference**

<u>PREVENTION AND OUTREACH</u>
1. **List organizations dedicated to injury prevention within the region and the issues they address (e.g., MADD, SADD, SafeKids Worldwide, Injury Free Coalition for Kids, ATS, university-based injury control programs).**
   There are numerous organizations active in ND, many of whom work together under the Safe Community umbrella. These groups include:
   - *Health Units – Child Passenger Safety, Bicycle Safety*
   - *Law Enforcement (Highway Patrol, Sheriff's Department, City Police) - Underage Drinking, Seat Belt Usage, Speeding, and Driving Under the Influence*
   - *Trauma Centers – Many Injury Prevention Projects*
   - *Schools (Private, Public, and Secondary) - Underage Drinking, Seatbelt Usage, Bullying, Suicide Prevention*
   - *Judicial Systems (Juvenile Court) – Underage Offenses*
   - *Military – Child Passenger Safety Seats and Domestic Violence*
   - *Local Government (Mayors and City Engineers) – Pedestrian Safety*
   - *Fire Departments – Fire Prevention*
   - *Ambulance Services – Underage drinking, Motor Vehicle Safety*
   - *Mental Health – Suicide Prevention*
   - *Addiction Services – Underage Drinking, Drinking and Diving*
   - *Media – They are involved in most projects*
   - *Community Action – Youth Programs*
   - *Private Citizens – Assists with many injury prevention projects*
   - *Businesses/retailers – Supports many injury prevention projects*
   - *Liquor industry – Underage Drinking and Drinking and Driving*
   - *Civic Groups – Youth Projects*
   - *MADD – Drinking and Driving*
   - *SADD – Impaired Driving and Underage Drinking and Drug Usage*
   - *Emergency Nurses Association – Impaired Driving, Child Passenger Safety Seats, and Seat Belts*

   Other organizations include:
   - *Safe Kids – Youth Safety*
   - *4-H – Animal and Household Safety*
   - *FCCLA – Family Career and Community Leaders of America*
   - *Farm Safety Just 4 Kids – Farm Safety*
   - *Nodak Mutual Farm Safety Program*
   - *AAA – Motor Vehicle Safety*
   - *ND Parks and Recreation - Safety Certification for ATV for kids 12 and older*
   - *ND Game and Fish – Becoming an Outdoors Woman, Boating & Water Safety Education, Hunter Education, and the National Archery in the Schools Program*

2. **Describe how the trauma lead agency has funded and coordinated system wide injury prevention or outreach activities.**
    The trauma lead agency has a partnership with the Injury Prevention Department within the ND Department of Health and is not directly involved with funding outreach activities. The State Trauma Coordinator works closely with the Injury Prevention Director in providing resources, injury data, and ideas for outreach activities.

    The State Trauma Coordinator is on the planning committee for the State Injury Prevention Conference. This year will be the first year the conference is held with plans to make it an annual conference.

    The annual Trauma Coordinators' Workshop includes an injury prevention topic as well as resources and ideas that can be utilized in their hospitals and communities.

    a. **Which injuries (including pediatric injuries) have been identified and prioritized for intervention strategies?**
        According to the North Dakota Injury Prevention Plan from 2005 there were 5 priority areas identified:

        - *Motor Vehicle Crashes*
        - *Suicides*
        - *Falls*
        - *Poisoning*
        - *Domestic Violence and Sexual Assault*

    3   **Identify any dedicated lead agency or other agency staff member (full or part- time) responsible for injury prevention outreach and coordination for the trauma system**.

        Director of Injury/Violence Prevention Programs
        North Dakota Department of Health
        Division of Injury Prevention and Control

        Director of Child Passenger Safety
        North Dakota Department of Health
        Division of Injury Prevention and Control

        Domestic Violence Rape Crisis Program Director
        North Dakota Department of Health
        Division of Injury Prevention and Control

4   What is the source of funding?

Funding for the ND Dept. of Health Injury Prevention Division and Control comes from a variety of sources.

- *Child Passenger Safety is funded by North Dakota Department of Transportation and Maternal and Child Health Block Grant (MCH)*
- *Suicide Prevention is by a Garrett Lee Smith Grant from Department of Health and Human Services Substance Abuse and Mental Health Services Administration and MCH*
- *Injury Prevention is funded by the MCH Block Grant*
- *Rape Crisis and Domestic Violence are both funded through as variety of Centers for Disease Control grants and Office of Justice grants.*

The Safe Community Groups are funded through grants and the ND Department of Transportation.

5   Explain the evaluation process for injury prevention projects that are conducted by the lead agency, trauma facilities, or other community-based organizations.

There is not any conducted by the lead agency. Trauma facilities and community-based organizations look at participation and injury rates before and after programs/activities are offered.

6   Identify any gaps in injury prevention efforts for population groups in the State.

One of the largest gaps is with statewide data for injury identification. We are missing statewide data to determine what our leading cause of injury is, however the ND Department of Health Injury Prevention Coordinator is working to bring together data sources to get a picture of injury in the state.

Documentation Required:

Prior to Site Visit:

☑ A listing of the number and nature of injury prevention activities conducted throughout the trauma system in the past year (e.g., activities directed at what mechanism/type of injury or what patient population, such as children and elders)

ND State Trauma System
2007 Injury Prevention Activities

1. State Trauma Coordinator is a member of the ND Injury Prevention Coalition
2. State Trauma Coordinator serves on a sub-committee under the ND Injury Prevention Coalition addressing primary seat belt law and driving under the influence of drugs/alcohol
3. State Trauma Coordinator is on the advisory board for the United Tribes Technical College Injury Prevention Department.
4. Injury prevention activities are addressed quarterly at the regional trauma committee meetings
5. Injury prevention topics/resources are provided quarterly in the Trauma Coordinator's Newsletter
6. Injury prevention topic/resources provided at the annual Trauma Coordinator's Workshop
7. ND Department of Health; Injury Prevention Program was a vendor at the State Trauma Conference.
8. Region 7 Safe Communities provided the SIDNE (simulated impaired driving go-cart) at the State Trauma Conference.
9. State Trauma Coordinator along with EMSC provided a booth on Water Safety at Summer Fun and Safety Day at Seratoma Park; Bismarck ND
10. State Trauma Coordinator presented trauma system activities to the Safe Community Coordinators
11. Collaborates with the Safe Community Coordinators in providing information and resources on alcohol screening and brief interventions to all ND hospitals.
12. State Trauma Coordinator is on the planning committee for the State Injury Prevention Conference.

ND Department of Health Injury Prevention
2007 Injury Prevention Activities

1. The ND Injury Prevention Coalition is a group of injury prevention programs operating across the state with a mission to reduce injury related deaths and injuries due to intentional and unintentional injuries. It has representation from Safe Kids coalitions, Indian Health Services, Emergency Medical Services, ND American Medical Association, hospitals, Department of Public Instruction, law enforcement, Mental Health America ND, Suicide prevention program, NDCAWS, AAA, to name a few. The Coalition met three times between 10/1/06-9/30/07. A mission statement was approved and is being used as the coalition's primary reason for meeting. "The North Dakota Injury Prevention Coalition is a multi-disciplinary partnership to reduce unintentional and intentional injuries and deaths." The members rely upon the meetings to network and collaborate on projects.

2. ND DoH in conjunction with the Hennepin County Poison Control Center maintain a website for educators, parents and the general public with poison prevention information available in a downloadable format.

3. Emergency Medical Services for Children staff were represented on the Statewide Injury Prevention Coalition and provided technical assistance. Collaboration also occurred with Risk Watch, an injury prevention program located with the North Dakota Fire Prevention Association. A member of the ND IPC staff is on the steering committee for Safe Kids North Dakota. A member of the ND DoH IPC staff serves on the advisory board for the United Tribes Technical College Injury Prevention Department. They are revising the curriculum to be a Wellness program and the ND DoH IPC staff will continue to serve on the board. The ND DoH IPC collaborates with the North Dakota Council on Abused Women's Services/Coalition Against Sexual Assault in ND to work towards primary prevention of sexual assault. Many of the local agencies are using an approach to anti-bullying as a means to prevent sexual assault.

4. A member of the ND IPC staff is on the Child Fatality Review Panel and works with that panel to address leading causes of injury death. A group of Injury Prevention specialists presented at the Coordinated School Health Roughrider Health Conference regarding efforts in ND to reduce injuries and injury death. Data was presented along with injury prevention programs available for local schools to make available to teachers and staff.

5. Educational materials were distributed to physicians, public health, Safe Communities programs, Safe Kids programs, law enforcement, Child Care Resource and Referral and other agencies that work with caregivers or parents who have contact with children. Child passenger safety month was celebrated across the state in February 2007, with 84 local agencies participating. 1,044 classroom presentations were completed in the schools, reaching 33,995 children with the buckle up message. Child passenger safety law fact sheets and photo frame magnets are distributed to agencies working with caregivers of young children. Laminated child passenger safety law cards are distributed to law enforcement agencies to update law enforcement personnel on the child passenger safety law.

6. Forty-one car seat distribution programs distributed 1,718 car seats. 232 car seats were distributed to five reservations.

7. Car seat checkup supplies were updated and purchased statewide. The program assisted with 91 car seat checks, inspecting 1,460 seats. Ongoing technical assistance was provided to certified child passenger safety technicians and instructors.

8. These educational efforts were promoted during child passenger safety month in February 2007.
   - Three NHTSA Standardized Child Passenger Safety Courses were held, resulting in the certification of 48 technicians.
   - Two child passenger safety certified technician refresher courses were held, with 86 technicians participating.

9. Technical assistance is continued throughout the year. North Dakota has 176 certified child passenger safety technicians. The Buckle Up section was the newsletter was written quarterly.

St. Alexius Medical Center; Bismarck ND
Level II Trauma Center
2007 Injury Prevention Activities

1. Risk Watch State Champion Management Team
2. Testified & sent letters to State Senate and House in support of primary seat belt law.
3. Innovative elderly falls prevention.
4. Monthly safety training hospital wide.
5. Teen Maze.
6. Teach trauma portion of PALS classes.
7. ETOH screening and intervention of hospitalized trauma patient.
8. Compile graphs from trauma registry data regarding injury causes, etc., presented at various programs, meetings, etc.
9. Member Region VII Safe & Drug Free Communities.
10. Summer Fun & Safety Day. 1I. Presented Injury Prevention points at PALS Instructor Course.
11. Attended Forensic Nursing Conference.
12. Member Region VII Occupant Protection Committee.
13. Member Bismarck-Mandan Safety Council.
14. Member North Dakota Injury Prevention Coalition.
15. Member Occupant Protection Sub-Committee of North Dakota Injury Prevention Coalition.
16. Member ATV Sub-Committee of North Dakota Injury Prevention Coalition.
17. Coordinated presentation of Injury Prevention portions of ATLS courses.
18. Helped coordinate Region VII Safe & Drug Free Communities Dodge Ball Tournament.
19. Helped with "Click it or ticket" Campaign.
20. Employee health fair booth with injury prevention messages & statistics.
21. Car seat technician participates in monthly car seat checks and also individual requests throughout the hospital.
22. Coordinated SD 24/7 Sobriety Project presentation at State Trauma Conference.
23. Coordinated SIDNE appearance at State Trauma Conference.
24. Car Seat Technician training, continuing education, meetings.
25. Bismarck Summer Safety Social at Sleepy Hollow Park.
26. Worked with Social Workers on what needs to be done to follow up with patients whosc injury was ETOH related.
27. Participated in car seat roundup and crushing.
28. Involved County Coroner and Medical Examiner in PIPS process to include methods of injury and death prevention.
29. Participated in selection and distribution of Choices magazine.
30. Taught injury prevention portion of PHTLS.
31. Taught injury prevention pieces of TNCC.
32. Helped DOT with news conference to unveil "Designate a Driver and Live" campaign. Supplied physician speakers, venue, etc.
33. ND Unveils 24/7 Sobriety Prqject!
34. Healthstream employee safety training.

MeritCare Hospital; Fargo ND
Level II Trauma Center
2007 Injury Prevention Activities

1.   Teenage Seatbelt Injury Prevention Talks
2.   CarFit Program – "Helping Mature Drivers Find Their perfect Fit"; educational program created by the American Society on Aging and developed in collaboration with AAA, AARP, and the American Occupational Therapy Association.
3.   Safe Kids Programs – coordinator of local group is form MeritCare
4.   Safe Communities – collaboration with local coordinator
5.   Car Seat Checks

Medcenter One Health System
Level II Trauma Center
2007 Injury Prevention Activities

1. Teen Maze at Horizon Middle School – 245 students
2. Teen Maze at Wachter School – 224 students
3. Teen Maze at Simle School – 208 students
4. Car Seat Checks various locations throughout the year – 240 seats checked
5. Bike Safety program in 10 Bismarck Public Schools – elementary level 556 students
6. Safety Village – 176 children
7. Kids in boats program – 38 kids, 24 parents
8. Grandparenting Circle Safety Fair – 250 children, and adults
9. Walk your child to School Day – 250-300 children and adults
10. Elderly Falls Program

Trinity Hospitals; Minot ND
Level II Trauma Center
2007 Injury Prevention Activities

1. Click It or Ticket/Click It for Kids (press conferences/share stats and citation numbers/seatbelt check points and local advertising.
2. Be A Better Biker
3. Operation Mugs 'n Hugs (collaboration with coalition and Crime Prevention Department)
4. The Trauma Program Manager appeared on a local news program called "Healthy Homes/Healthy Family" where she focused on summer safety and injury prevention
5. The Paramedic Coordinator for Northstar Criticair and the Trauma Program Manager travel to local high schools to present a program called "Trauma Nurse Talks Tough About Trauma". This program is presented to drivers' education students in the Minot and surrounding areas. Annually more than 600 kids are reached.
6. ND Marketing Agency ("Do Buckle Don't Booze" advertising/campaign ideas)
7. Trinity is a sponsor of the annual Norsk Hostfest in October. This is the largest gathering of Scandinavians in the country. Trinity provides nurses, including the TPM, to be at the arena to provide first-aid if necessary.

Innovis Health; Fargo ND
Level II Trauma Center
2007 Injury Prevention Activities

1. Active participant with Fargo Safe Communities
2. Involved in regular Child passenger Safety Seat Checks
3. Car Seat Safety classes to the public
4. Participation in yearly Farm Safety days
5. Members of Fargo/Moorhead Safe Kids Coalition
6. Adopt a School; every summer we provide all 5th graders with bike helmets, properly fit each child and review importance of helmets. We also do a presentation on pedestrian safety.
7. Community Bike Rodeos
8. Participate in Cars and Kids Program
9. Distribute winter safety tips in employee paystub mailing yearly as well as hand out winter safety pamphlets.
10. The ER has a program in the summer months that nay child involved in a bicycle accident is provided with a new properly fitted helmet and information on importance of helmets to the parents.
11. Provide the First Aid at Rib Fest in Fargo, on an annual basis

Altru Health Systems; Grand Forks ND
Level II Trauma Center
2007 Injury Prevention Activities

1.   **Care Seat Check-up Events:**
      From January 2006 through December 2007, 33 Car Seat Check-Up events were
      held distributing 96 car seats and checking/installing 1005 car seats with an
      overall misuse rate of 73%

2.   **Child Passenger Safety Trainings and Classes**

3.   **Child Passenger Safety Informational Booths at Health and Safety Fairs**

4.   **Child Passenger Safety Presentations**

5.   **Motor Vehicle Occupant Protection Presentations**
      Multiple presentations and interviews have been done at high schools, health
      fairs, and radio stations. Northern Valley Safe Communities partnered with
      University of ND College of Nursing students to conduct a seat belt safety
      campaign which included an observational survey, a poster campaign and seat
      belt safety informational booths at UND Memorial Union.

6.   **Responsible Alcohol Server Training**
      Northern Valley Safe Communities partners with the Grand Forks Police
      Department and the Larimore Police Department to conduct Responsible Alcohol
      Server Training Classes. 1327 licensed liquor establishment employees have
      been trained.

7.   **Drunk and Drugged Driving Prevention Month**
      Did interviews with numerous radio stations. NVSCC members participated in
      two National Night Out Evens in Grand Forks.

8.   **Alcohol Abuse and Underage Drinking Prevention Activities**

9.   **Playground Safety**

10.   **Fall Prevention**

St. Joseph's Hospital; Dickinson ND
Level III Trauma Center
2007 Injury Prevention Activities

1. Fall prevention program for elderly
2. Safety City for 4-5 year olds for learning safety on many levels (bike, street, poisons, stranger etc.)
3. Infant seat safety checks
4. CHOPS tours of hospital with injury prevention provided for 2nd graders from all over the region
5. Skateboard/Sledding Safety signs and brochures
6. Seat Belt Checks

Emergency Medical Services

1. Provide information on the last assessment of EMS, including assessor and date.

In 1992 North Dakota's EMS System was reviewed by NHTSA. There is another one scheduled for April 7 – 11, 2007. A preliminary report will be available at the time of our review.

    a. Describe the EMS system to include the number and competencies (i.e. ALS or BLS) of ground transporting agencies, non-transporting agencies, and aeromedical resources.

    Currently we have 4 ALS/Critical Care air ambulances licensed in North Dakota – roto-wing in Fargo and Minot and fixed wing in Fargo, Bismarck, and Aberdeen SD

    There are 18 ALS Ground Ambulances Services licensed in North Dakota

    There are 118 BLS Ground Ambulance Services licensed in North Dakota

    There are 58 Quick Response Unites licensed in North Dakota.

    b. How are these resources allocated throughout the region to service the population?

    Generally the ALS services are located in the larger communities in North Dakota. Most ALS services work with the BLS services in their areas to provide intercept services.

    If a paramedic is available on a BLS Service in North Dakota and the Medical Director provides written authorization and the appropriate equipment is available, the paramedic may perform ALS procedures. This is beneficial for small communities that have only 1 or 2 paramedics and can't guarantee that there will be 24 hour a day ALS.

    c. Describe the availability of enhanced 911 and wireless E-911access in your region.

    All the counties in North Dakota have enhanced 911 available by land line, except for 1. That county is in the process of activating it.

    In North Dakota all wireless service across the state is Phase II enhanced, that is the latitude and longitude of the caller's location is identified.

d. **Identify any specialty pediatric transporting agencies and aeromedical resources**.
There are no specialty pediatric transport agencies. All transport agencies are expected to care for all ages of patients.
There are two helicopter air ambulance services in the state. They are sponsored by MeritCare in Fargo and Trinity Health in Minot.

Fixed wing air ambulances based in North Dakota are at Fargo's MeritCare and one through Medcenter One and Bismarck-Mandan Metro Area Ambulance based in Bismarck. There are other fixed wing air services based in Minnesota that have been utilized to transfer patients to Minnesota. There is also a fixed wing service based in Aberdeen, SD that is utilized in some areas in North Dakota.

e. **Describe the availability of pediatric equipment on all ground transporting units**.
All ground ambulances are required to have the following pediatric equipment:
- *Nasal Cannulas and Non-rebreather Masks*
- *Bag valve mask resuscitation units in infant and child sizes*
- *Fracture splints*
- *Nasopharyngeal airways*
- *Oropharyngeal airways*
- *Infant and child blood pressure cuffs*

All ground ambulances are encouraged to have the following pediatric equipment:
- *Pediatric immobilization device*
- *Pediatric traction splint*
- *Infant/Child car seat*

2. **Describe the procedures for on-line and off-line medical direction, including those for the pediatric population**.
All ambulance services are required to have off line medical control in the form of protocols. Sample protocols were sent out in 2007 to the Medical Directors of the ambulance services to assist them. The Medical Directors have the authority to implement protocols they are comfortable with, as long as they fall within the EMT's scope of practice. The protocols address both adult and pediatric populations.

a. **Describe how EMS and trauma medical direction and oversight are coordinated and integrated**.
   On a local level the ambulance services generally have one Medical Director that includes trauma and pediatrics. Many of these physicians are also included on the Trauma Center's Trauma Committee and get feedback on trauma issues.

   On a State level we do not have either an EMS or Trauma Medical Director.

3. **Describe the prehospital workforce competencies in trauma:**

   a. **Initial training and certification/licensure requirements**
      North Dakota utilizes the National Highway Traffic Safety Administration's educational standards for EMT courses of all levels. The National Registry of EMT's Standards is utilized for both initial certification and recertification testing.

   b. **Continuing education and recertification/relicensure requirements**
      North Dakota utilized the National Registry of EMT's for recertification testing. They are required to take an approved recertification course, based on the standards of the National Highway Traffic Safety Administration, have appropriate continuing education, and pass written exams.

   c. **Pediatric trauma training requirements for recertification**
      In North Dakota we utilize the National Registry's standards. There is a requirement in the EMT Refresher Course to include 2 hours of information on OB, Infant, and Pediatric care.

Documentation Required:

Prior to Site Visit:

☑ Guidelines for patient care delivery decisions (primary or in-field triage / destination designation guidelines)

☑ Map identifying the location of aeromedical resources in the region

Name of Service_____

Type of Service   ☐ALS   ☐BLS

Location of Service (City)_____

Name of Squad Leader/Manger_____
Adress_____City_____
County_____Zip Code_____
Phone _____Email_____

Name of Medical Director_____
Adress_____City_____
County_____Zip Code_____
Phone _____Email_____

ADDITIONAL AVAILABLE RESOURCES

    A. Ground Ambulance Service

    Location   Service Type   Contact Information

    _____

    _____

    _____

    B. Quick Response Units

    Location   Contact Information

    _____

    _____

    _____

    C. Rescue/Extrication Units

    Location   Contact Information

    _____

    _____

D. **Air Medical Services**

Location   Contact Information

_____

_____

_____

E. Biohazard Decontamination

Location   Contact Information

_____

_____

_____

HOSPITAL RESOURCES

   A. Designated Urban Trauma Centers

        Level II _____

                   _____

                   _____

        Level III _____

   B. Designated Rural Trauma Centers

        Level IV_____

                   _____

                   _____

                   _____

                   _____

Level V _____

_____

_____

_____

_____

Trauma Transport Plan
Service Area Map

MAP

Zone 1 =   Zone 3 =
Zone 2 =   Zone 4 =

Trauma Transport Plan
Transport Zones

Zone	Trauma Transport Protocol

Ambulance Services must include a copy of the criteria utilized to activate/call a trauma code.

Return Completed Transport Plan to:
North Dakota Department of Health
Division of Emergency Medical Services
600 East Boulevard Ave – Dept 301
Bismarck ND 58505-0200

For Any Questions Please Contact
Amy Eberle – State Trauma Coordinator at:
701-328-1026 or aeberle@nd.gov

Approved by Regional Trauma Committee

Not Approved by Regional Trauma Committee with recommendations attached.

Trauma Regional Chair Signature_____

North Dakota Ambulance Service
4.2.7 Trauma Baseline Care Standards – Pediatric
EMT-Basic
The following actions will be taken on each ambulance trauma call. Once a specific patient condition is determined by the EMS provider, he or she will treat that condition according to specific protocols.

1. **Scene Size-up**
    - Review the dispatch information.
    - BSI PRN.
    - Make sure scene is safe.
    - Determine mechanism of injury.
    - Determine number and location of patients.
    - Request additional resources if needed.

2. **Primary Assessment**
    - The primary care provider must conduct a primary assessment for each patient to determine any life-threatening injuries or conditions. Any life-threatening conditions must be addressed immediately per specific protocol. Call for trauma code as soon as possible PRN (see trauma transport scheme below).
    - Airway, oxygen therapy, and breathing as per the Airway Management protocol. (Manually stabilize C-spine PRN).
    - Treat any massive flail segment that causes respiratory compromise.
    - Treat tension pneumothorax per protocol.
    - Control hemorrhage.

3. **Secondary Assessment**
    - A detailed secondary assessment must be performed after the primary assessment is complete and any life-threatening conditions are addressed.
    - Apply C-Collar and fully immobilize the spine on backboard or pediatric immobilizer PRN.
        o Infants and small children in car seats may be immobilized without removing them from the car seat, as long as it will not interfere with patient assessment or other procedures, and the car seat is intact. If patient has been removed from car seat, do not put patient back into car seat to immobilize.
    - Monitor O_2 saturations.
    - Apply traction splint for femur fracture.
    - Splint other extremity fractures in position of comfort. Consult with medical control if distal CMS deficits are noted.
    - At least two sets of vital signs must be recorded or vital signs every 15 minutes. If the patient is unstable, vital signs must be recorded every 5 minutes. Vital signs include:
        o Mental Status (AVPU).
        o Blood Pressure

- o Pulse
- o Respirations
- o Circulation/Motor/Sensory (CMS) in all four extremities.
- o Glasgow Coma Scale (GCS).
- Treat specific conditions according to protocol.
- Call for ALS intercept or helicopter transport if available.
- Transport and trauma team activation per decision scheme below:

A patient with any one of the following criteria must be transported to a trauma designated hospital and a trauma code <u>must</u> be activated.

Glasgow Coma Scale…………………………………………..<14
Systolic Blood Pressure………………………………………...<90
Respiratory Rate…………………………………….<10 or > 29

- All penetrating injuries to head, neck, torso, and extremities proximal to elbow and knee
- Flail Chest
- Combination trauma with burns
- Two or more long-bone fractures
- Amputation proximal to wrist and ankle
- Pelvic Fractures
- Open or depressed skull fractures
- Paralysis
- Major Burns

A patient with any one or more of the following criteria must be transported to a trauma designated hospital and a trauma code <u>may</u> be activated at the discretion of the EMS provider.

- Ejection from an automobile
- Death in the same passenger compartment
- High speed auto crash, with initial speed > 40mph, major auto deformity >20 inches, and intrusion into passenger compartment > 12 inches
- Auto-pedestrian/auto-bicycle with significant impact (>5 mph)
- Pedestrian thrown or run over
- Motorcycle crash > 20mps or rider separated from bike
- Falls > 20 feet
- Rollover
- Extrication time > 20 minutes
- Age <5 or >55
- Cardiac Disease or Respiratory Disease
- Insulin-Dependant Diabetes, cirrhosis, or morbid obesity
- Pregnancy
- Immunosuppressed patients
- Patients with bleeding disorders or on anticoagulants.

_____   _____
Medical Director's Signature   *Date*

North Dakota Ambulance Service
4.0.7 Trauma Baseline Care Standards
EMT - Basic

The following actions will be taken on each ambulance trauma call. Once a specific patient condition is determined by the EMS provider, he or she will treat that condition according to specific protocols.

1. **Scene Size-up**
   - Review the dispatch information.
   - BSI PRN.
   - Make sure scene is safe.
   - Determine mechanism of injury.
   - Determine number and location of patients.
   - Request additional resources if needed.

2. **Primary Assessment**
   - The primary care provider must conduct a primary assessment for each patient to determine any life-threatening injuries or conditions. Any life-threatening conditions must be addressed immediately per specific protocol. Call for trauma code as soon as possible PRN (see trauma transport scheme below).
   - Airway, oxygen therapy, and breathing per the Airway Management protocol. (Manually stabilize C-spine PRN).
   - Treat any massive flail segment that causes respiratory compromise.
   - Control hemorrhage.

3. **Secondary Assessment**
   - A detailed secondary assessment must be performed after the primary assessment is complete and any life-threatening conditions are addressed.
   - Apply C-Collar and fully immobilize the spine if:
     - Patient complains of head, neck, or back pain.
     - Patient exhibits any neuro deficits including decreased LOC.
     - Patient is intoxicated.
     - Patient has a distracting injury that may mask head, neck, or back pain.
     - Mechanism of Injury is substantial.
     - At the discretion of the primary care provider.
   - Monitor O_2 saturations.
   - Apply traction splint for femur fracture.
   - Splint other extremity fractures in position of comfort. Consult with medical control if distal CMS deficits are noted.
   - At least two sets of vital signs must be recorded or vital signs every 15 minutes. If the patient is unstable, vital signs must be recorded every 5 minutes. Vital signs include:
     - Mental Status (AVPU).
     - Blood Pressure
     - Pulse

- o Respirations
- o Circulation/Motor/Sensory (CMS) in all four extremities.
- o Glasgow Coma Scale (GCS).
- Treat specific conditions according to protocol.
- If patient is unstable, call for ALS intercept or helicopter transport if available.
- Transport and trauma team activation per decision scheme below:

A patient with any one of the following criteria must be transported to a trauma designated hospital and a trauma code <u>must</u> be activated.

Glasgow Coma Scale………………………………………..<14
Systolic Blood Pressure………………………………………...<90
Respiratory Rate………………………………………….<10 or > 29

- All penetrating injuries to head, neck, torso, and extremities proximal to elbow and knee
- Flail Chest
- Combination trauma with burns
- Two or more long-bone fractures
- Amputation proximal to wrist and ankle
- Pelvic Fractures
- Open or depressed skull fractures
- Paralysis
- Major Burns

A patient with any one or more of the following criteria must be transported to a trauma designated hospital and a trauma code <u>may</u> be activated at the discretion of the EMS provider.

- Ejection from an automobile
- Death in the same passenger compartment
- High speed auto crash, with initial speed > 40mph, major auto deformity >20 inches, and intrusion into passenger compartment > 12 inches
- Auto-pedestrian/auto-bicycle with significant impact (>5 mph)
- Pedestrian thrown or run over
- Motorcycle crash > 20mps or rider separated from bike
- Falls > 20 feet
- Rollover
- Extrication time > 20 minutes
- Age <5 or >55
- Cardiac Disease or Respiratory Disease
- Insulin-Dependant Diabetes, cirrhosis, or morbid obesity
- Pregnancy
- Immunosuppressed patients
- Patients with bleeding disorders or on anticoagulants.

_____   _____

Medical Director's Signature   _Date_

North Dakota Ambulance Service
3.1.7 Trauma Baseline Care Standards
EMT – Intermediate '85

The following actions will be taken on each ambulance trauma call. Once a specific patient condition is determined by the EMS provider, he or she will treat that condition according to specific protocols.

1. **Scene Size-up**
   - Review the dispatch information.
   - BSI PRN.
   - Make sure scene is safe.
   - Determine mechanism of injury.
   - Determine number and location of patients.
   - Request additional resources if needed.

2. **Primary Assessment**
   - The primary care provider must conduct a primary assessment for each patient to determine any life-threatening injuries or conditions. Any life-threatening conditions must be addressed immediately per specific protocol. Call for trauma code as soon as possible PRN (see trauma transport scheme below).
   - Airway, oxygen therapy, and breathing as per the Airway Management protocol. (Manually stabilize C-spine PRN).
   - Treat any massive flail segment that causes respiratory compromise.
   - Treat tension pneumothorax per protocol.
   - Control hemorrhage.

3. **Secondary Assessment**
   - A detailed secondary assessment must be performed after the primary assessment is complete and any life-threatening conditions are addressed.
   - Apply C-Collar and fully immobilize the spine on backboard or pediatric immobilizer PRN.
     - Infants and small children in car seats may be immobilized without removing them from the car seat, as long as it will not interfere with patient assessment or other procedures, and the car seat is intact. If patient has been removed from car seat, do not put patient back into car seat to immobilize.
   - Establish an IV of Normal Saline. If hypotensive, infuse 20ml/kg bolus. Repeat PRN.
   - Monitor O$_2$ saturations.
   - Apply traction splint for femur fracture.
   - Splint other extremity fractures in position of comfort. Consult with medical control if distal CMS deficits are noted.
   - At least two sets of vital signs must be recorded or vital signs every 15 minutes. If the patient is unstable, vital signs must be recorded every 5 minutes. Vital signs include:

- o Mental Status (AVPU).
  - o Blood Pressure
  - o Pulse
  - o Respirations
  - o Circulation/Motor/Sensory (CMS) in all four extremities.
  - o Glasgow Coma Scale (GCS).
- Treat specific conditions according to protocol.
- Call for ALS intercept or helicopter transport if available.
- Transport and trauma team activation per decision scheme below:

A patient with any one of the following criteria must be transported to a trauma designated hospital and a trauma code <u>must</u> be activated.

Glasgow Coma Scale…………………………………………..<14
Systolic Blood Pressure………………………………………...<90
Respiratory Rate………………………………………….<10 or > 29

- All penetrating injuries to head, neck, torso, and extremities proximal to elbow and knee
- Flail Chest
- Combination trauma with burns
- Two or more long-bone fractures
- Amputation proximal to wrist and ankle
- Pelvic Fractures
- Open or depressed skull fractures
- Paralysis
- Major Burns

A patient with any one or more of the following criteria must be transported to a trauma designated hospital and a trauma code <u>may</u> be activated at the discretion of the EMS provider.

- Ejection from an automobile
- Death in the same passenger compartment
- High speed auto crash, with initial speed > 40mph, major auto deformity >20 inches, and intrusion into passenger compartment > 12 inches
- Auto-pedestrian/auto-bicycle with significant impact (>5 mph)
- Pedestrian thrown or run over
- Motorcycle crash > 20mps or rider separated from bike
- Falls > 20 feet
- Rollover
- Extrication time > 20 minutes
- Age <5 or >55
- Cardiac Disease or Respiratory Disease
- Insulin-Dependant Diabetes, cirrhosis, or morbid obesity
- Pregnancy
- Immunosuppressed patients
- Patients with bleeding disorders or on anticoagulants.

_____   _____
Medical Director's Signature   *Date*

North Dakota Ambulance Service
3.2.7 Trauma Baseline Care Standards – Pediatric
EMT – Intermediate '85
The following actions will be taken on each ambulance trauma call. Once a specific patient condition is determined by the EMS provider, he or she will treat that condition according to specific protocols.

1. **Scene Size-up**
   - Review the dispatch information.
   - BSI PRN.
   - Make sure scene is safe.
   - Determine mechanism of injury.
   - Determine number and location of patients.
   - Request additional resources if needed.

2. **Primary Assessment**
   - The primary care provider must conduct a primary assessment for each patient to determine any life-threatening injuries or conditions. Any life-threatening conditions must be addressed immediately per specific protocol. Call for trauma code as soon as possible PRN (see trauma transport scheme below).
   - Airway, oxygen therapy, and breathing as per the Airway Management protocol. (Manually stabilize C-spine PRN).
   - Treat any massive flail segment that causes respiratory compromise.
   - Treat tension pneumothorax per protocol.
   - Control hemorrhage.

3. **Secondary Assessment**
   - A detailed secondary assessment must be performed after the primary assessment is complete and any life-threatening conditions are addressed.
   - Apply C-Collar and fully immobilize the spine on backboard or pediatric immobilizer PRN.
     o Infants and small children in car seats may be immobilized without removing them from the car seat, as long as it will not interfere with patient assessment or other procedures, and the car seat is intact. If patient has been removed from car seat, do not put patient back into car seat to immobilize.
   - Establish an IV of Normal Saline. If hypotensive, infuse 20ml/kg bolus. Repeat PRN.
   - Monitor O_2 saturations.
   - Apply traction splint for femur fracture.
   - Splint other extremity fractures in position of comfort. Consult with medical control if distal CMS deficits are noted.
   - At least two sets of vital signs must be recorded or vital signs every 15 minutes. If the patient is unstable, vital signs must be recorded every 5 minutes. Vital signs include:

- o Mental Status (AVPU).
- o Blood Pressure
- o Pulse
- o Respirations
- o Circulation/Motor/Sensory (CMS) in all four extremities.
- o Glasgow Coma Scale (GCS).
- Treat specific conditions according to protocol.
- Call for ALS intercept or helicopter transport if available.
- Transport and trauma team activation per decision scheme below:

A patient with any one of the following criteria must be transported to a trauma designated hospital and a trauma code <u>must</u> be activated.

Glasgow Coma Scale…………………………………………..<14
Systolic Blood Pressure……………………………………..<90
Respiratory Rate………………………………………….<10 or > 29

- All penetrating injuries to head, neck, torso, and extremities proximal to elbow and knee
- Flail Chest
- Combination trauma with burns
- Two or more long-bone fractures
- Amputation proximal to wrist and ankle
- Pelvic Fractures
- Open or depressed skull fractures
- Paralysis
- Major Burns

A patient with any one or more of the following criteria must be transported to a trauma designated hospital and a trauma code <u>may</u> be activated at the discretion of the EMS provider.

- Ejection from an automobile
- Death in the same passenger compartment
- High speed auto crash, with initial speed > 40mph, major auto deformity >20 inches, and intrusion into passenger compartment > 12 inches
- Auto-pedestrian/auto-bicycle with significant impact (>5 mph)
- Pedestrian thrown or run over
- Motorcycle crash > 20mps or rider separated from bike
- Falls > 20 feet
- Rollover
- Extrication time > 20 minutes
- Age <5 or >55
- Cardiac Disease or Respiratory Disease
- Insulin-Dependant Diabetes, cirrhosis, or morbid obesity
- Pregnancy
- Immunosuppressed patients
- Patients with bleeding disorders or on anticoagulants.

_____   _____
Medical Director's Signature   *Date*

North Dakota Ambulance Service
2.1.7 Trauma Baseline Care Standards
Paramedic
The following actions will be taken on each ambulance trauma call. Once a specific patient condition is determined by the EMS provider, he or she will treat that condition according to specific protocols.

1. **Scene Size-up**
   - Review the dispatch information.
   - BSI PRN.
   - Make sure scene is safe.
   - Determine mechanism of injury.
   - Determine number and location of patients.
   - Request additional resources if needed.

2. **Primary Assessment**
   - The primary care provider must conduct a primary assessment for each patient to determine any life-threatening injuries or conditions. Any life-threatening conditions must be addressed immediately per specific protocol. Call for trauma code as soon as possible PRN (see trauma transport scheme below).
   - Airway, oxygen therapy, and breathing as per the Airway Management protocol. (Manually stabilize C-spine PRN).
   - Treat any massive flail segment that causes respiratory compromise.
   - Treat tension pneumothorax per protocol.
   - Control hemorrhage.

3. **Secondary Assessment**
   - A detailed secondary assessment must be performed after the primary assessment is complete and any life-threatening conditions are addressed.
   - Apply C-Collar and fully immobilize the spine if:
     o Patient complains of head, neck, or back pain.
     o Patient exhibits any neuro deficits including decreased LOC.
     o Patient is intoxicated.
     o Patient has a distracting injury that may mask head, neck, or back pain.
     o Mechanism of Injury is substantial.
     o At the discretion of the primary care provider.
   - Establish an IV of Normal Saline. Use a large bore (18ga. or larger). If BP <90 mmHG, start a second IV Normal Saline. Infuse at a bolus rate; titrate to BP of 90 mmHg.
   - Monitor ECG and O_2 saturations.
   - Apply traction splint for femur fracture.
   - Splint other extremity fractures in position of comfort. Consult with medical control if distal CMS deficits are noted.

- At least two sets of vital signs must be recorded or vital signs every 15 minutes. If the patient is unstable, vital signs must be recorded every 5 minutes. Vital signs include:
  - Mental Status (AVPU).
  - Blood Pressure
  - Pulse
  - Respirations
  - Circulation/Motor/Sensory (CMS) in all four extremities.
  - Glasgow Coma Scale (GCS).
- Treat specific conditions according to protocol.
- If patient is unstable, call for helicopter transport if available.
- Transport and trauma team activation per decision scheme below:

A patient with any one of the following criteria must be transported to a trauma designated hospital and a trauma code <u>must</u> be activated.

Glasgow Coma Scale…………………………………………..<14
Systolic Blood Pressure…………………………………………..<90
Respiratory Rate………………………………………….<10 or > 29

- All penetrating injuries to head, neck, torso, and extremities proximal to elbow and knee
- Flail Chest
- Combination trauma with burns
- Two or more long-bone fractures
- Amputation proximal to wrist and ankle
- Pelvic Fractures
- Open or depressed skull fractures
- Paralysis
- Major Burns

A patient with any one or more of the following criteria must be transported to a trauma designated hospital and a trauma code <u>may</u> be activated at the discretion of the EMS provider.

- Ejection from an automobile
- Death in the same passenger compartment
- High speed auto crash, with initial speed > 40mph, major auto deformity >20 inches, and intrusion into passenger compartment > 12 inches
- Auto-pedestrian/auto-bicycle with significant impact (>5 mph)
- Pedestrian thrown or run over
- Motorcycle crash > 20mps or rider separated from bike
- Falls > 20 feet
- Rollover
- Extrication time > 20 minutes
- Age <5 or >55
- Cardiac Disease or Respiratory Disease
- Insulin-Dependant Diabetes, cirrhosis, or morbid obesity
- Pregnancy
- Immunosuppressed patients
- Patients with bleeding disorders or on anticoagulants.

_____   _____
Medical Director's Signature   *Date*

North Dakota Ambulance Service
2.2.7 Trauma Care Standards – Pediatric
Paramedic

The following actions will be taken on each ambulance trauma call. Once a specific patient condition is determined by the EMS provider, he or she will treat that condition according to specific protocols.

1. **Scene Size-up**
   - Review the dispatch information.
   - BSI PRN.
   - Make sure scene is safe.
   - Determine mechanism of injury.
   - Determine number and location of patients.
   - Request additional resources if needed.

2. **Primary Assessment**
   - The primary care provider must conduct a primary assessment for each patient to determine any life-threatening injuries or conditions. Any life-threatening conditions must be addressed immediately per specific protocol. Call for trauma code as soon as possible PRN (see trauma transport scheme below).
   - Airway, oxygen therapy, and breathing as per the Airway Management protocol. (Manually stabilize C-spine PRN).
   - Treat any massive flail segment that causes respiratory compromise.
   - Treat tension pneumothorax per protocol.
   - Control hemorrhage.

3. **Secondary Assessment**
   - A detailed secondary assessment must be performed after the primary assessment is complete and any life-threatening conditions are addressed.
   - Apply C-Collar and fully immobilize the spine on backboard or pediatric immobilizer PRN.
     - Infants and small children in car seats may be immobilized without removing them from the car seat, as long as it will not interfere with patient assessment or other procedures, and the car seat is intact. If patient has been removed from car seat, do not put patient back into car seat to immobilize.
   - Establish an IV of Normal Saline. If hypotensive, infuse 20ml/kg bolus. Repeat PRN.
   - Monitor ECG and O_2 saturations.
   - Apply traction splint for femur fracture.
   - Splint other extremity fractures in position of comfort. Consult with medical control if distal CMS deficits are noted.
   - At least two sets of vital signs must be recorded or vital signs every 15 minutes. If the patient is unstable, vital signs must be recorded every 5 minutes. Vital signs include:
     - Mental Status (AVPU).

- o Blood Pressure
- o Pulse
- o Respirations
- o Circulation/Motor/Sensory (CMS) in all four extremities.
- o Glasgow Coma Scale (GCS).
- Treat specific conditions according to protocol.
- If patient is unstable call for helicopter transport if available.
- Transport and trauma team activation per decision scheme below:

A patient with any one of the following criteria must be transported to a trauma designated hospital and a trauma code <u>must</u> be activated.

Glasgow Coma Scale………………………………………..<14
Systolic Blood Pressure…………………………………..<90
Respiratory Rate…………………………………. <10 or > 29

- All penetrating injuries to head, neck, torso, and extremities proximal to elbow and knee
- Flail Chest
- Combination trauma with burns
- Two or more long-bone fractures
- Amputation proximal to wrist and ankle
- Pelvic Fractures
- Open or depressed skull fractures
- Paralysis
- Major Burns

A patient with any one or more of the following criteria must be transported to a trauma designated hospital and a trauma code <u>may</u> be activated at the discretion of the EMS provider.

- Ejection from an automobile
- Death in the same passenger compartment
- High speed auto crash, with initial speed > 40mph, major auto deformity >20 inches, and intrusion into passenger compartment > 12 inches
- Auto-pedestrian/auto-bicycle with significant impact (>5 mph)
- Pedestrian thrown or run over
- Motorcycle crash > 20mps or rider separated from bike
- Falls > 20 feet
- Rollover
- Extrication time > 20 minutes
- Age <5 or >55
- Cardiac Disease or Respiratory Disease
- Insulin-Dependant Diabetes, cirrhosis, or morbid obesity
- Pregnancy
- Immunosuppressed patients
- Patients with bleeding disorders or on anticoagulants.

_____   _____
Medical Director's Signature   _Date_

North Dakota Air License

ALS Air Ambulance

Critical Care Air Ambulance

Minot

Bismarck

Fargo

South Dakota - Aberdeen
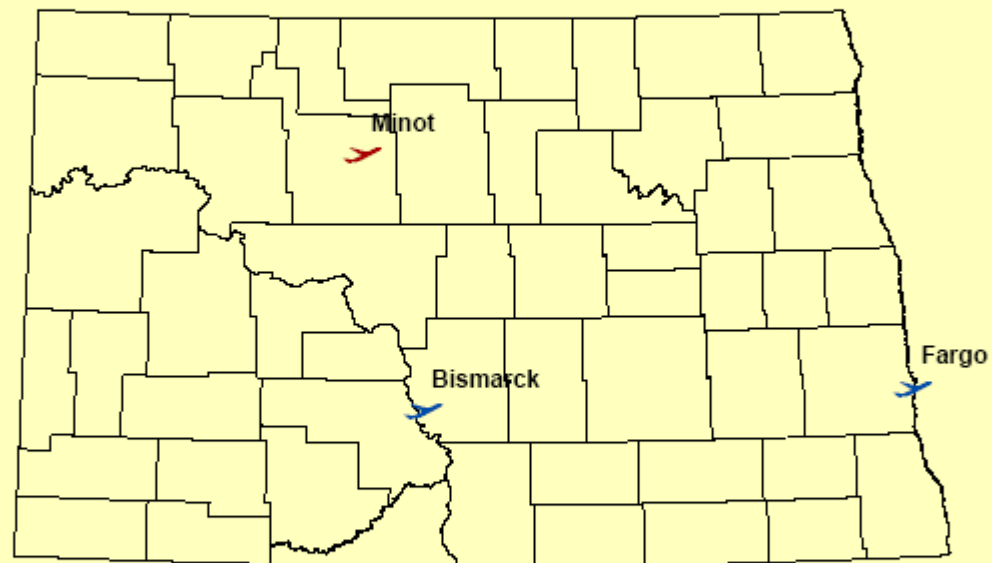
NORTH DAKOTA
DEPARTMENT *of* **HEALTH**
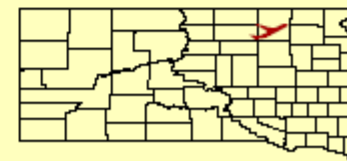
<u>**DEFINITIVE CARE FACILITIES**</u>

1. **Describe the extent to which all acute care facilities participate in the trauma system**.
    We have 46 hospitals in ND, including one in Breckinridge MN. 38 of them are designated as Trauma Centers. The 8 that aren't designated are small hospitals and would be in the Level IV or V category.

    a. **Describe the availability and roles of specialty centers within the system (pediatric, burn, traumatic brain injury spinal cord injury)**
        In ND our Level II Trauma Centers serve as our regional centers and provide care for most of the trauma patients in ND, including most pediatric, traumatic brain injury, and spinal cord injuries. Depending on the patient and their injuries, the Level II may feel it is in the best interest of the patient to be transferred to a Level I Trauma Center, most often in the Minneapolis – St. Paul area. Serious burn injuries are also transferred to Burn Units in the Minneapolis – St. Paul area.

2. **Describe the roles of the non-designated acute care facilities in the trauma system**.
    The ND Trauma System is an inclusive system and all hospitals have been encouraged by the State Trauma Committee, State Trauma Coordinator, the Level II's in their region, and the ND Healthcare Association to become trauma centers.

    According to the ND Trauma Rules "Emergency medical services shall develop local emergency medical services transport plans for the transport of major trauma patients by appropriate means to the nearest designated trauma center."

    Today we have local voluntary BLS ambulance services who take major trauma patients to their local undesignated hospital, partially because of the distance to the next hospital that is designated and partially because of local politics. Letters have been sent to both the local ambulance services and the undesignated hospitals. Compliance has improved, but is not 100%.

    a. **Address their representation on the regional trauma committee**
        All hospitals have a trauma contact person, usually the TPM, Trauma Coordinator, or Director of Nursing who are all invited to participate in the Regional Trauma Committees, Trauma Coordinator meetings, Trauma Coordinator Workshops.

b. Do they submit registry and/or financial data

Of the 8 hospitals that are undesignated, 3 of them submit data to the State Trauma Registry. It is required in ND Century Code that a hospital not designated as a trauma center must provide to the registry a minimum set of data elements according to the inclusion criteria. Getting data from all hospitals both designated and nondesignated has been the bulk of our registry problems. Hospitals have stated they have problems with outdated computer software and inadequate staffing to enter the data. There are no penalties in place for hospitals that do not submit their data. The State Trauma Coordinator and Research Analyst have been working with all hospitals (some on a one to one basis) by consistent communication and education on how important data submission is. We are finally to the point where most hospitals are submitting or resolving issues to begin submitting their data.

c. What is their degree of engagement in the systemwide performance improvement process?

Generally they do not participate, as the majority of performance improvement has come from designation visits.

There is a trauma coordinator/contact person at each of the undesignated and designated hospitals. They are all invited to participate in the Trauma Coordinators Workshop held prior to the State Wide Trauma Conference. PI is one of the topics, nearly every year.

3. **Describe the process for verification and designation. Briefly outline the extent of authority granted to the lead agency to receive applications and to verify, designate and de-designate regional trauma centers.**

For hospitals to be designated a Level I, II, or III Trauma Center they are verified by the American College of Surgeons, Committee on Trauma (ACS-COT). When the State Trauma Coordinator receives documentation of successful verification, the ND State Department of Health issues a designation certificate.

If the ACS-COT does not verify the hospital and recommends a focused visit, the hospital must submit a plan of correction addressing each deficiency identified to the State Trauma Committee and ND State Department of Health. The State Trauma Committee may recommend proceeding with a provision designation or a Level IV or V designation. They may also recommend a visit by a Trauma Surgeon and Trauma Program Manager from a Level II, and the State Trauma Coordinator who will prepare a report for the State Trauma Committee to review.

For hospitals to be designated a Level IV or V they fill out an application which is then reviewed by the State Trauma Coordinator. A Trauma Surgeon and TPM from the area's Level II and the State Trauma Coordinator do a site visit. The team prepares a report, the State Trauma Coordinator blinds it so the hospital is not identified, and it is presented to the State Trauma Committee. The State Trauma Committee will recommend approval or denial of the designation.

If designation is denied, the hospital will receive a written notice identifying the criteria that was not met and they may receive a limited designation with a focused review in 2 to 12 months. If not given a limited designation, they are encouraged to reapply after correcting the areas of concern.

The Department of Health has the authority to designate and de-designate trauma centers with input from the State Trauma Committee.

4. **Describe your standards for trauma center verification (including pediatric standards) and the extent to which they are aligned with national standards**.
   For Level I, II, and III North Dakota requires verification by the American College of Surgeons to be designated.

   Level IV and V's rules were originally based on the "Resources for Optimal Care of the Injured Patient: 1993" from the Committee on Trauma of the American College of Surgeons. The rules have been updated since then, but we have not changed the standards for Level IV to include surgery or ICU's, since these small hospitals are generally staffed with ATLS trained Family Practice Physicians. We added the Level V Trauma Centers after Critical Access Hospitals came into being, so the system could remain inclusive.

   a. **Describe any waivers or program flexibility granted for centers not meeting verification requirements**.
      If a Level I, II, or III Trauma Centers is not verified by the ACS-COT and a Focused visit is recommended, the hospital must submit a plan of correction addressing each deficiency identified to the State Trauma Committee and ND State Department of Health. The State Trauma Committee may recommend proceeding with a provision designation or a Level IV or V designation. They may also recommend a visit by a Trauma Surgeon and Trauma Program Manager from a Level II, who will prepare a report for the State Trauma Committee to review.

      If a Level IV or V designation is denied, the hospital will receive a written notice identifying the criteria that was not met and they may receive a limited designation with a focused review in 2 to 12 months. If not given a limited designation, they are encouraged to reapply after correcting the areas of concern.

b. **Describe the process and frequency of use for de-designation of trauma centers**.

The ND Department of Health has not de-designated a Trauma Center. One of the Level IV Trauma Centers recognized that they were not meeting the ATLS requirements for physicians, and voluntarily resigned their designation, until they were able to meet it. In the process they notified the area ambulance services and other Trauma Centers.

There have also been Level IV Centers that have voluntarily changed their status to a Level V Center based on decreased physician availability. In these cases a formal letter requesting to change status and documentation of midlevel ATLS status are required to be sent to the State Trauma Coordinator. The Chair and Co-Chair of the State Trauma Committee along with the State Trauma Coordinator review the request and grant the designation based on all the requirements being met.

5. **Outline how the geographic distribution and number of designated acute care facilities is aligned with patient care needs**.

One of the advantages ND had when the trauma system was being developed was our geography. Our rectangular shape divides nicely into quadrants with one major city in each region. In each of the cities there was at least 1 hospital that either was or was striving to be a Level II Trauma Center. We now have at least one Level II in each region and one Level III in the largest region.

The majority of smaller hospitals (38/46 with one being from MN) have become Level IV or V Trauma Centers.

a. **Describe the process by which additional trauma centers are brought into the system**.

When hospitals want to become a Trauma Center the State Trauma Coordinator and the Level II Trauma Centers offer their assistance. When they are ready for a review, they fill out the application and send it into the State Trauma Coordinator. When the application passes the paper review, she sets up the visit with a Trauma Surgeon and Trauma Program Manager.

The ND Trauma System Rules do not limit the number of Trauma Centers anyplace in the state.

b. **Describe the system response to the voluntary withdrawal of designation by acute care facilities**.

The withdrawal is reviewed by the State Trauma Coordinator when she receives it, and ensures that area ambulance services and hospitals are aware of the change in status. The withdrawal is brought to the State Trauma Committee at their next meeting.

    c. **Describe the mechanism for tracking and monitoring patient volume and flow between centers and how this influences the overall configuration of designated facilities**.
There is no mechanism for tracking and monitoring patient volume and flow between centers.

6. **Describe your system for assessing the adequacy of the work force resources available within participating centers.**
This is left up to the individual Trauma Centers.

    a. **Address nursing and subspecialty needs (trauma or general surgery, intensivists, neurosurgeons, orthopedic surgeons, anesthetists, pediatric surgeons, and others as required).**
Trauma Centers are required to meet the standards of the American College of Surgeons, Committee on Trauma (Levels I, II, and III) and the ND Trauma Rules (Level IV and V). This includes staffing levels.

To address the trauma educational needs of the trauma professionals in ND there is a State Wide Trauma Conference to provide low cost quality trauma education. There are "hands on" preconference sessions for the midlevels from Level V's on Airway Management and Chest Decompression.

    b. **What human resource deficiencies have been identified and what corrective actions have been taken?**
If these deficiencies are found by the ACS during a Level II or III site visit and a CD is given to the hospital, the State Trauma Committee may grant a provisional designation to the hospital.

7. **Describe the educational standards and credentialing for emergency physicians and nursing staff, general surgeons, specialty surgeons, and critical care nurses caring for trauma patients in designated facilities**.
The Level I, II, and III Trauma Centers are expected to follow the requirements of the American College of Surgeons.

For Level IV and V Trauma Centers are required to have an ATLS trained Team Leader for major trauma patients.

    a. **What regional educational multidisciplinary conferences are provided to care providers? Who is responsible for organizing these events?**
- *State Wide Trauma Conference is sponsored by the ND Trauma Foundation, ND Department of Health, and the Level II and III Trauma Centers. The Level II and III Trauma Program Managers and the State Trauma Coordinator put this together.*

- *Preconference Trauma Coordinators Workshop is sponsored by the ND Trauma Foundation, ND Department of Health, and the Level II and III Trauma Centers. The Level II and III Trauma Program Managers and the State Trauma Coordinator put this together.*
- *All of the Regional Trauma Committees have had educational offerings in conjunction with some of their meetings. The Level II Trauma Centers from the region generally provides this.*
- *The ND EMS Association organizes and sponsors Statewide and Regional educational conferences.*
- *Many of the Level II Trauma Centers organize and sponsor EMS Trauma Conferences for the EMS providers in their service areas.*
- *The North Dakota and South Dakota Chapters of the ACS-COT have agreed to sponsor a National Trauma Speaker for the North Dakota – South Dakota American College of Surgeons Conference.*

Documentation Required:

Prior to Site Visit:

- ☑ Copy of the document outlining the process for designation, redesignation, and de-designation (if necessary) of trauma centers **(documentation taken from the ND Trauma Guidelines Mannual)**
- ☑ Copy of the standards (if other than ACS), used for trauma center verification
- ☑ A list of acute care facilities with the following data for each:
    - o Level of designation/verification
    - o A geographical map showing the location, catchment areas, and designation for all acute care facilities
    - o Patient volume **(ISS>15 not available)**
        - ▪ ED visits
        - ▪ Admissions
    - o A list of trauma facilities with their level of designation and trauma patient volume **(ISS>15 not available)**

***There were a few facilities that did not submit their injury data by the deadline. I will have an updated document on site for the review team.

Trauma Designation and Critical Access Hospitals

2006 Injury Data

Region	Level	City	Hospital	Injury Visits	Injury Admits
NE	II	GRAND FORKS	ALTRU HOSP	7413	770
NE	V	NORTHWOOD	NORTHWOOD DEACONESS	225	6
NE	IV	GRAFTON	UNITY MED CTR	497	27
NE	V	DEVILS LAKE	MERCY HOSP	2545	29
NE	IV	PARK RIVER	FIRST CARE HEALTH CENTER	198	36
NE	IV	CAVALIER	PEMBINA CO MEM HOSP	450	200
NE	Not Designated	MCVILLE	NELSON CO HEALTH SYSTEM		
NE	Not Designated	LANGDON	CAVALIER CO MEM HOSP	402	33
NW	II	MINOT	TRINITY HOSP	6463	903
NW	IV	GARRISON	GARRISON MEM HOSP	318	0
NW	V	BOTTINEAU	ST ANDREWS MED CTR	**290**	4
NW	IV	WILLISTON	MERCY MED		
NW	IV	RUGBY	HEART OF AMERICA MED CTR	597	38
NW	IV	CANDO	TOWNER CO MED CTR		
NW	IV	BELCOURT	QUENTIN BURDICK HEALTH CARE		
NW	V	TIOGA	TIOGA MED CTR	152	2
NW	V	KENMARE	KENMARE COM HOSP	149	3
NW	Not Designated	CROSBY	ST LUKE'S HOSP	92	17
NW	Not Designated	ROLLA	PRESENTATION MED CTR	768	16
NW	V	STANLEY	MOUNTRAIL CO MED CTR	335	3
SE	II	FARGO	MERITCARE	11,851	1924
SE	II	FARGO	INNOVIS HEALTH	2636	436
SE	IV	OAKES	OAKES COMMUNITY HOSP	477	64
SE	IV	VALLEY CITY	MERCY HOSP	976	21
SE	IV	JAMESTOWN	JAMESTOWN HOSP	1768	56
SE	IV	BRECKENRIDGE MN	ST FRANCIS MED		
SE	IV	CARRINGTON	CARRINGTON HEALTH CTR	461	29
SE	Not Designated	COOPERSTOWN	COOPERSTOWN MED CTR	242	23
SE	Not Designated	HILLSBORO	HILLSBORO MED CTR	236	2
SE	IV	LISBON	LISBON AREA HEALTH SVCS	251	7

				240	30
SE	V	MAYVILLE	UNION HOSPITAL		
SW	II	BISMARCK	MEDCTR ONE HEALTH SYSTEMS	4817	617
SW	II	BISMARCK	ST ALEXIUS MED CTR	5602	491
SW	III	DICKINSON	ST JOSEPH'S HOSP	2872	430
SW	IV	ASHLEY	ASHLEY MED CTR	200	3
SW	IV	HAZEN	SAKAKAWEA MED CTR	838	4
SW	IV	HARVEY	ST ALOISIUS MED CTR	345	24
SW	IV	HETTINGER	WEST RIVER REGIONAL MED CTR		
SW	IV	LINTON	LINTON HOSP	166	26
SW	V	TURTLE LAKE	COMMUNITY MEM HOSP	136	4
SW	IV	BOWMAN	SOUTHWEST HEALTH CARE	191	19
SW	V	ELGIN	JACOBSON MEM HOSP		
SW	Not Designated	FORT YATES	FORT YATES		
SW	Not Designated	RICHARDTON	RICHARDTON HEALTH CTR		
SW	V	WATFORD CITY	MCKENZIE CO MEM HOSP	348	5
SW	IV	WISHEK	WISHEK COM HOSP	164	17

33-38-01-06. Trauma center designation.
1. Five levels of hospital designation must be established.
2. Hospitals applying for level I, level II or level III designation shall present evidence of having current trauma center verification from the American college of surgeons. The department shall issue designation with an expiration date consistent with the American college of surgeons verification expiration date.
3. Hospitals applying for level IV and V trauma center designation must submit an application to the department. Once the application is approved by the department, an onsite verification visit shall be conducted by the department or its designee. The verification team shall compile a report. The application and report will be reviewed by the state trauma committee. If approved, the department shall issue the designation to the facility.
4. Hospitals without trauma center designation applying for a provisional designation must submit an application to the department. Once the application is approved by the department an onsite visit shall be conducted by a team designated by the state trauma committee. The team shall compile a report. The application and report will be reviewed by the state trauma committee. If approved, the department shall issue a provisional designation for a maximum of twenty-four months. During these twenty-four months the facility must complete an American college of surgeons verification visit.
5. The health council, in establishing a comprehensive trauma system, may designate an out-of-state hospital within 50 miles of any border of this state.

History: Effective July 1, 1997; amended effective June 1, 2001.
General authority: NDCC 23-01.2-01
Law implemented: NDCC 23-01.2-01

33-38-01-07. Trauma center revocation of designation. The department may revoke designation of a trauma center if evidence exists that the facility does not meet the required trauma center standards. The department or its designee may inspect any trauma center or applicant for trauma center designation at any time for compliance with the standards. Designation must be revoked if a facility denies or refuses inspection.

A trauma center that fails to maintain the standards, or voluntarily relinquishes their designation, may submit a plan for correction. Once the plan is approved by the department, the trauma center may be reinstated as a designated trauma center. Failure to follow an approved plan of correction results in revocation of the trauma center's designation.

History: Effective July 1, 1997.
General authority: NDCC 23-01.2-01
Law implemented: NDCC 23-01.2-01

33-38-01-13. Level IV trauma center designation standards. The following standards shall be met to achieve level IV designation:

1. Trauma team activation plan.
2. Trauma team leader must be a current advanced trauma life support certified physician, who is on call and available within twenty minutes and has experience in resuscitation and care of trauma patients.
3. Transfer agreements as the transferring facility to a level II trauma center for major trauma care, burn care, rehabilitation service for long term care, acute spinal cord and head injury management, and pediatric trauma management.
4. Equipment for resuscitation and life support of all ages must include:

    a. Airway control and ventilation equipment, including laryngoscopes and endotracheal tubes of all sizes, including pediatrics, bag mask resuscitator, pocket masks and oxygen.
    b. Pulse oximetry.
    c. End tidal CO_2 determination.
    d. Suction devices.
    e. Electrocardiograph, oscilloscope, and defibrillator.
    f. Standard intravenous fluids and administration devices, including large bore intravenous catheters.
    g. Sterile surgical sets for airway control, cricothyrotomy, vascular access and chest decompression.
    h. Gastric decompression.
    i. Drugs necessary for emergency care.
    j. Communication with emergency medical services vehicles.
    k. Spinal stabilization equipment.
    l. Thermal control equipment for patients.
    m. Broselow tape.

5. Quality improvement programs to include:
    a. Focused audit of selected filters.
    b. Trauma registry in accordance with 33-38-01-08.
    c. Focused audit for all trauma deaths.
    d. Morbidity and mortality review.
    e. Medical nursing audit, utilization review and tissue review.

6. Trauma transfer protocol to include:
    a. Triage decision scheme.
    b. Trauma transport plan.

History: Effective June 1, 2001
General Authority: NDCC 23-01.2-01
Law Implemented: NDCC 23-01.2-01

33-38-01-14. Level V trauma designation standards. The following standards shall be met to achieve level V designation:

1. Trauma team activation plan.
2. Trauma team leader must be on call and available within twenty minutes, who has experience in resuscitation and care of trauma patients. The trauma team leader must be one of the following:

    a. A physician who is current in advanced trauma life support.
    b. A physician assistant, whose supervising physician, has delegated to the physician assistant the authority to provide care to trauma patients and who has taken the trauma nursing core course, and is current in advanced pre-hospital trauma life support and advanced trauma life support.
    c. A nurse practitioner whose scope of practice entails the care of trauma patients, has taken the trauma nursing core course, is current in advanced pre-hospital trauma life support and advanced trauma life support, and whose scope of practice is approved by the North Dakota board of nursing.

3. Transfer agreements as the transferring facility to a level II trauma center for major trauma care, burn care, rehabilitation service for long term care, acute spinal cord and head injury management, and pediatric trauma management.

4. Equipment for resuscitation and life support of all ages must include:

    a. Airway control and ventilation equipment, including laryngoscopes and endotracheal tubes of all sizes, including pediatrics, bag mask resuscitator, pocket masks and oxygen.
    b. Pulse oximetry.
    c. End tidal CO_2 determination.
    d. Suction devices.
    e. Electrocardiograph, oscilloscope, and defibrillator.
    f. Standard intravenous fluids and administration devices, including large bore intravenous catheters.
    g. Sterile surgical sets for airway control, cricothyrotomy, vascular access and chest decompression.
    h. Gastric decompression.
    i. Drugs necessary for emergency care.
    j. Communication with emergency medical services vehicles.
    k. Spinal stabilization equipment.
    l. Thermal control equipment for patients.
    m. Broselow tape.

5. Quality improvement programs to include:

    a. Focused audit of selected filters.
    b. Trauma registry in accordance with 33-38-01-08.
    c. Focused audit for all trauma deaths.
    d. Morbidity and mortality review.
    e.   Medical nursing audit, utilization review and tissue review.
    f. Current advanced trauma life support certified physician review of all trauma codes managed by a physician assistant or advanced nurse practitioner within forty-eight hours. This may be either the consulting or transfer receiving physician.

6. Trauma transfer protocol to include:

    a. Triage decision scheme.
    b. Trauma transport plan.
    c. Call schedule for physician, if available.
    d. Immediate telephone contact with a level II trauma center.

History: Effective June 1, 2001
General Authority: NDCC 23-01.2-01
Law Implemented: NDCC 23-01.2-01

DESIGNATION PROCESS
FOR LEVEL I, II AND III TRAUMA CENTERS

DESIGNATION PROCESS

The North Dakota Department of Health will provide a reminder letter six months prior to expiration date for Levels I, II and III. The hospital will be responsible for scheduling a verification visit with the American College of Surgeons, Committee on Trauma (ACS-COT). Ideally, this will begin six months prior to expiration of the current verification/designation.

The state trauma coordinator can issue a provisional Level I, II or III trauma center designation extension if the facility made contact with the American College of Surgeons six months prior to their expiration date, and submitted the application to the ACS three months prior to the expiration date. The state trauma coordinator will make contact with the chair and vice-chair of the State Trauma Committee prior to issuing the extension. This extension will bridge the gap until the official results from the ACS are received.

Following the ACS visit, the facility will receive a letter from the ACS-COT containing information about the verification status.

RESULTS OF THE ACS SITE VISIT;
A. ACS Verification letter issued: The facility is verified by the ACS-COT and receives a letter of congratulations. The facility shall send a copy of the ACS verification letter to the North Dakota state trauma coordinator. The state trauma coordinator will then send the facility a designation certificate and letter with the corresponding dates from the ACS-COT.

B. ACS Focused visit or Deficiency letter issued: The facility does not receive a verification certificate from the ACS-COT, therefore, it is not considered verified. The North Dakota Department of Health may recommend proceeding with a provision designation or a Level IV or V designation.

If the facility chooses to proceed with the provisional designation as a Level I, II or III trauma center, the facility must send a copy of the ACS focused review letter and a complete list of the strengths, weaknesses, deficiencies, and recommendations to the state trauma coordinator. A State Trauma Committee meeting will be conducted to determine the plan of action. The plan of action generally consists of one of the two following options:

(1) Submission of a written plan of correction – The facility must submit a complete plan of correction addressing each deficiency identified by the ACS site visit. The plan of correction will be reviewed by the chair and vice chair of the state trauma committee if voting has already occurred. If the state trauma committee has not voted on the provisional designation, then the plan of correction will be reviewed by all voting members of the state trauma committee and a vote will be taken.

(2) Conducting a state provisional site visit – The facility must submit the application supplied to the ACS-COT, along with the report from the ACS-COT visit as the provisional designation application. A team will be selected by the Department of Health and State Trauma Committee. The team will be composed of one or two physicians, with one being a trauma surgeon/director from a Level II trauma center and a trauma coordinator. The state trauma coordinator also will participate in the site designation visit. The provisional designation visit will take approximately six hours. The site survey team will compile a report regarding the designation visit. The application and report will be sent to the voting members of the State Trauma Committee at least one week prior to the next meeting. The State Trauma Committee will approve or deny the designation site survey application and report. If the designation is approved, a certificate of designation signed by the Department of Health – state health officer, will be sent to the facility within 10 business days of the State Trauma Committee meeting, unless extenuating circumstances will not allow. If the designation is denied by the North Dakota Department of Health, the facility will receive written notification that includes the standards that were not met and will encourage the facility to reapply after correcting any identified areas of concern.

Within four weeks of the site survey, the site survey team (excluding the state trauma coordinator) may request a direct reimbursement of meals and mileage at current state rates as set by the Department of Health.

PROVISIONAL DESIGNATION REVIEW

Based on the Standards of the
American College of Surgeons – Committee on Trauma

The purpose of this review is to designation the facility's compliance with the American College of Surgeons (ACS) standards for a Level I, II or III trauma center. The site surveyors are charged with the responsibility of obtaining a detailed and accurate assessment of the facility's capabilities in a very short period of time. Please be aware that the surveyors may look beyond the requested documents and medical records if they need additional validation of compliance with the standards. This document will serve as a guide for the review process.

For planning purposes, the review will last approximately six hours. The team may visit the following departments:

A. Emergency Department
  • Review the facility, resuscitation area, equipment, protocols, staffing and trauma call
  • Interview the ED physician and ED nurse manger and ED staff nurse
  • Review the prehospital interaction and QI/PI feedback mechanism

B. Operating Room / PACU
  • Interview operating room nurse manager, MDA and CRNA
  • Check operating room schedule
  • Determine how a trauma OR suite is opened STAT

C. ICU
  • Inspect facility and review equipment
  • Interview surgical medical director, ICU nurse manager and ICU staff nurse
  • Discuss patient triage and bed availability

D. Radiology
  • Inspect facility
  • Interview radiologist and technician
  • Discuss patient triage
  • Determine patient monitoring policy

E. Blood Bank / Laboratories
  • Inspect facility
  • Interview technicians
  • Determine availability of blood products and massive transfusion protocols

F. Rehabilitation
  • Inspect facility and interview staff
  • Determine where and when rehabilitation is initiated

G. Interviews – Potential interviews include:
- Hospital administration
- Trauma medical director
- Neurosurgeon
- Orthopedic surgeon
- Trauma coordinator and registrar
- Chief of staff

H. Chart Review / QI/PI
- Review quality improvement documents
- Review medical records

I. Site surveyor's preparation for exit interview. This is a closed meeting – site survey team only.

J. Exit Interview
- Hospital administration
- Trauma medical director
- Trauma coordinator
- Chief of staff
- Others as desired by the hospital

The following items are necessary to have ready and available at the time of a state provisional designation visit for a Level I, II or III trauma center.

A. Copy of primary and backup call/schedules for three months prior to review
- Trauma, neurosurgery, orthopedic and emergency physicians

B. Documentation of CME and credentialing (for the past three years)
- Trauma, neurosurgery, orthopedic and emergency physicians

C. Documentation of credentialing for the ED and ICU trauma nurses

D. Quality improvement
- Minutes of all previous trauma quality or performance improvement (QI/PI) activities, including multidisciplinary peer review, trauma system committees and trauma surgeons' meetings/rounds
- Attendance records for all trauma service QI/PI meetings
- Documentation of all PI initiatives
- Specific evidence of loop closure
- Improvements and changes since the last ACS visit

E. Documentation of the hospital's activity for one year (use what you put together for the ACS)
- Intramural education – physicians, nurses and pre-hospital
- Extramural education – physicians, nurses and pre-hospital
- Community outreach/injury prevention

F. The following medical records from the past 12 months that have gone through the QI/PI process; separate into stacks:
- Deaths separated as:
    - Preventable
    - Potentially preventable
    - Nonpreventable
- Epidurals/subdurals
- Liver/spleen
    - Operative
    - Nonoperative
- Pelvic/femur fractures – particularly hypotensive patients
- Patients that lived with an ISS $\geq$ 25
- Patients admitted to non-surgeons
- Others requested by the reviewers and approved by the State

DESIGNATION PROCESS FOR LEVEL IV AND V TRAUMA CENTERS

DESIGNATION PROCESS

- The North Dakota Department of Health will provide two reminder letters at one year and six months prior to the expiration date for trauma centers that have been previously designated. The trauma center must submit the completed application to the Department of Health (Level IV and V) three months prior to expiration date of the current designation.

- Applications submitted to the state trauma coordinator for Levels IV and V site visits will have a paper review for accuracy and compliance prior to a survey team conducting a site visit. If the application is not approved on paper review, the state trauma coordinator will notify the facility of concerns and provide education and/or support so the facility can meet the essential criteria.

- Once paper review is completed, a site survey team will be notified and a copy of the application will be sent to the site survey team.

- The team will conduct a site visit as soon as possible after receiving the application. The team will be comprised of a trauma director/surgeon and trauma coordinator from a Level II trauma center. The state trauma coordinator will attempt to be present at all site surveys.

- After the site review, the reviewers will prepare and send a report to the state trauma coordinator. The state trauma coordinator will blind the application and report prior to sending it out to the voting members of the State Trauma Committee. It will be sent at least one week prior to the next State Trauma Committee meeting.

- The State Trauma Committee, which will recommend approval or denial of the trauma center designation, will review the blinded application and report. If designation is approved, a certificate of designation, signed by the Department of Health – State Health Officer, will be sent to the facility, along with the site survey team's report of the strengths, weakness and recommendations of the facility.

- If designation is denied, the hospital will receive a written notice identifying which criteria were not met. The state trauma coordinator can be utilized as a resource person for the facility to work towards meeting the criteria. The facility will either (1) receive a limited designation (see below) with a focused visit or (2) be strongly encouraged to reapply after correcting any identified criteria or areas of concern.

- The State Trauma Committee may recommend a limited designation with a focused review. This limited designation may vary from two to 12 months, during which time a focused review must be conducted to ensure the issue in question has been corrected. The facility receiving the limited designation will receive a trauma center designation certificate printed on a different colored paper with an expiration date that corresponds with the end of the limited designation time frame. The focus review will be conducted by one or any combination of the following: state trauma coordinator, trauma director/surgeon, Level II or III trauma coordinator, or other designee.

- Notice of designation will be sent within 10 business days of the State Trauma Committee meeting unless extenuating circumstances will not allow; for example, the state health officer is not present to sign the designation certificate.

- A Level IV trauma center wanting to change to a Level V trauma center may submit a written request to the state trauma coordinator, along with all the requested paperwork. The state trauma coordinator can approve the change from a Level IV to a Level V trauma center without a State Trauma Committee vote if all the necessary requirements have been met. The state trauma coordinator will inform the State Trauma Committee of the change. The Level V trauma center designation will be issued for the remainder of the three-year designation. The trauma center designation cannot be extended beyond the original expiration date.

APPLICATION FORM

- An application for either Level IV or V trauma center designation can be obtained from the state trauma coordinator at the North Dakota Department of Health.

- Hospitals applying or reapplying for Level IV or V trauma center designation shall submit the completed application to the State Trauma Coordinator three months prior to the trauma center's expiration date.

- The application is available electronically and can be e-mailed to you. If the application is completed electronically (on computer), please **bold** or *italize* your answers to make it easier to read.

- All essential criteria in the designation application for Levels IV and V trauma centers must be met prior to sending the application to the state trauma coordinator.

- Hospitals shall use the most recent 12-month period ("reporting year") for choosing the charts of patients that are reviewed. The dates must coincide with charts that have gone through your QI/PI process.

- Consider the following points when completing a trauma center application:
  - The definition of a major trauma patient is any patient with one or more of the following:
    - Glasgow Coma Scale   < 14
    - Systolic blood pressure   < 90
    - Respiratory rate   < 10 or > 29
    - Revised Trauma Score   < 11
    - All penetrating injuries to head, neck torso, and extremities proximal to the elbow and knee
    - Flail chest
    - Combination trauma with burns
    - Two or more proximal long-bone fractures
    - Pelvic fractures
    - Open and depressed skull fracture
    - Paralysis
    - Amputation proximal to wrist and ankle
    - Major burns

    The facility may choose to include any additional criteria in their definition of a major trauma patient such as:
    - Ejection from a vehicle
    - Death in same passenger compartment
    - Extrication time > 20 minutes
    - Falls > 20 feet
    - Rollover
    - High-speed auto crash
      - Initial speed > 40 mph
      - Major auto deformity > 20 inches
      - Intrusion into passenger compartment > 12 inches
    - Auto-pedestrian/auto-bicycle injury with significant (>5 mph) impact
    - Pedestrian thrown or run over
    - Motorcycle crash > 20 mph or with separation of rider from bike
    - Age < 5 or > 55
    - Cardiac disease, respiratory disease
    - Insulin-dependent diabetes, cirrhosis, or morbid obesity
    - Pregnancy
    - Immunosuppressed patients
    - Patient with bleeding disorder or patient on anticoagulants

  - Trauma Code Activation
    - The facility must have a trauma team activation protocol that defines who will respond to the major trauma patient.
    - A trauma code must be called for any patient meeting the definition of a major trauma patient.
    - The trauma team activation is a mechanism to ensure all the necessary care providers are ready and available in the emergency department prior to the arrival of the patient.
    - Care providers may include lab, x-ray, pastoral care, additional nurses, anesthesia,

respiratory care, ward clerks, etc, but the team must include the trauma team leader (ATLS physician or NP/PA with trauma training), one nurse, and all necessary ancillary services.
  ◆ The activation of a trauma code will improve the process to avoid delays in patient care between injury and definitive care.

- Trauma codes "activated" in the last year (reporting year) shall include all major trauma patients when all necessary care providers are ready in the emergency department.

- Facilities are required to submit data to the state trauma registry.

- Prevention / Public education – Include any activities in which the hospital participates such as:
  1. Car seat programs.
  2. Articles and information for local newspaper articles.
  3. Hospital newsletters.
  4. Bike safety fairs.
  5. Information sheets with billings.
  6. Farm safety.
  7. Bike helmets – information and helmet giveaways.
  8. Teddy bear clinic.
  9. Gun safety.

- Continuing education for physicians, midlevel practitioners and nurses, consider:
  1. Sponsoring staff to attend ATLS, TNCC, ATCN, PHTLS.
  2. Any trauma related in-services.
  3. Sending people to trauma conferences.
  4. PALS and ACLS.
  5. Trauma drills.
  6. Disaster drills.
  7. Include any online presentations that your hospital facilitates.

- Prehospital education, consider:
  1. Assisting with education at the squad meetings.
  2. Providing ER experience for the all levels of EMS providers and students.
  3. Inviting the pre-hospital providers to hospital in-services.
  4. Supporting or teaching PHTLS or other courses.

- Quality/performance improvement – Explain the process, including peer review and the hospital review process. **Never** send actual QI/PI reports with your application.

- Suggested QI/PI indicators include:

    Prehospital:

    - Missing initial trip ticket on chart
    - Scene time > 20 minutes
    - Lack of appropriate spinal stabilization
    - Unmaintained airway on arrival at hospital
    - Missed trauma code – Patient met criteria for trauma code, but it was not called from the field by EMS
    - Lack of hypothermia precautions

    Hospital:

    - Trauma deaths - Include if the death was preventable, potentially preventable, or non-preventable (information on page 26)
    - Transfers after two hours from arrival
    - GCS $\leq$ 8 and airway not established
    - Missed trauma code calls on patients meeting trauma team activation protocol
    - Did not confirm ET tube placement
    - Inappropriate spinal stabilization
    - Patient intubated by the critical care/ALS transport team before leaving (Why wasn't it done before they got there?)
    - Trauma team leader with > 20 minutes response time
    - Inappropriately or non-splinted fractures
    - Missing initial trip ticket when transferring a patient out
    - Transport delays due to CT scans being done
    - Unstable patient in CT scan
    - Lack of utilizing core warming interventions (hypothermia)
    - Lack of following the trauma team activation criteria

    Required for Level V:

    - Documentation of case reviews on trauma codes conducted by midlevel provider within 48 hours

SITE VISIT

- The designation visit will take approximately three hours.

- Consider these things within a site visit:
    ✶ Remember, this is not meant to be threatening. In most cases you know the reviewers, and they are there to help you provide optimal care for trauma patients.
    ✶ Generally, the reviewers will begin with a tour of the hospital. During the tour, the reviewers will check on the supplies and equipment that are required. They also will ask questions about the trauma program; much of what is asked will be information that is in the application.
    ✶ Following the tour, the reviewers will go to a conference room to review charts, QI and other documents. Please have everything available.
    ✶ Separate charts into piles, such as deaths, transfers out and admitted patients. If the medical records department includes all of the charts from multiple visits in the same folder, please tag the trauma visit sections.
    ✶ The reviewers will need to speak to the physicians and administrator at some point during the site visit; during the exit interview is acceptable. If the reviewers have any questions, they can be asked at that time.
    ✶ The reviewers also will want to speak with the prehospital personnel. Ask the reviewers when they would like to speak to them.
    ✶ After the reviewers finish with the charts and QI, they will need a few minutes to prepare for the exit interview.
    ✶ The exit interview can be done over a light meal if it is held at noon.
    ✶ The exit interview can be attended by whomever you choose to invite; however the administrator, physician, trauma coordinator, EMS representative and director of nursing should be included.
    ✶ Please take the opportunity to ask questions throughout the entire visit, including during the exit interview.

- Within four weeks of the site survey, the site survey team, excluding the state trauma coordinator, may request direct reimbursement of meals and mileage at state rates as set by the Department of Health.

- Travel and meal expenses are the only financial obligation of the hospital in participating in the designation process for the North Dakota Trauma System.

Levels IV and V Trauma Center Designation Criteria

E = Essential D = Desirable

HOSPITAL ORGANIZATION

- □ Trauma program   E
- □ Trauma team   E
- □ Emergency department   E
- □ Anesthesiology   D
- □ General surgery   D
- □ Radiology   D

TRAUMA POLICY/GUIDELINES

- □ Trauma team activation protocol   E
  (with specified criteria for calling a trauma code)
- □ Immediate phone contact with a level II trauma center   E
- □ Posted on call schedule for trauma team leader   E
- □ Trauma transfer protocol   E

TRAUMA CAPABILITIES

- □ Trauma team leader on call and promptly available within   E
  20 minutes/24 hours a day
- □ *Level IV* – Physicians current in ATLS certification   E
- □ *Level V* – Nurse practitioner/physician assistant with ATLS and   E
  TNCC

FACILITIES/RESOURCES/CAPABILITIES

Personnel

- □ Nursing personnel with special capability in trauma care   D
  who provide continual monitoring of the trauma patient.
- □ Trauma coordinator/QI personnel   E
- □ Designated physician director   D

Equipment for resuscitation of patients of all ages shall include but is not limited to:

- □ Airway control and ventilation equipment, including   E
  laryngoscopes, endotracheal tubes, bag-valve-mask,
  pocket masks and oxygen.
- □ Pulse oximetry   E
- □ End-title CO_2 E
- □ Suction devices   E
- □ Monitor-defibrillator   E
- □ Standard intravenous fluids and administration devices,   E
  including large-bore intravenous catheters
- □ Gastric decompression   E
- □ Drugs necessary for emergency care   E
- □ Surgical sets for airway control, cricothyrotomy, vascular access,
  and chest decompression   E
  Including 36 Fr chest tubes, drainage setup, and insertion tray

□ X-ray availability, 24 hours a day	D
□ Two-way communication with vehicles of emergency transport system	E
□ Spinal immobilization	E
□ Pediatric weight/length based drug dosage and equipment system	E

Thermal control equipment:

□ For patient	E
□ For blood/fluids	D

Clinical laboratory service (available 24 hours a day)

□ Standard analysis of blood, urine, and other body fluids	D
□ Blood typing	D
□ Coagulation studies	D
□ Comprehensive blood bank or access to blood bank	D
□ Blood gases and pH determinations	D
□ Microbiology	D
□ Drug and alcohol screening	D

QUALITY/PERFORMANCE IMPROVEMENT PROGRAM

□ Quality/performance improvement program	E
□ Focused audit of selected filters	E
□ Trauma registry submission to state trauma program	E
□ Special review for all trauma deaths	E
□ Morbidity and mortality review	E
□ Nursing review of trauma care	E
□ Review of pre-hospital trauma care	E
□ Multidisciplinary trauma committee to review trauma patients	E
□ *Level V-* ATLS physician review of all trauma codes managed by a midlevel practitioner within 48 hours.	E

CONTINUING EDUCATION

□ Nurses	D
□ Allied health personnel	D

PREVENTION

□ Collaboration with other institutions	D
□ Monitor progress/effectiveness of prevention programs	D
□ Outreach activities	D
□ Participation in community prevention activities	D

TRANSFER AGREEMENTS

- □ Transfer agreement with regional trauma center   E
- □ Transfer agreement with the following specialties:
  - □ Burn care   D
  - □ Rehabilitation   D
  - □ Pediatric care   D
  - □ Head/spinal care   D

Checklist derived from the:
1993 Resources for Optimal Care of the Injured Patient; ACS and North Dakota Trauma System Plan Administrative Rules Chapter 33-38

1. **Describe the source of prehospital trauma triage protocols and specify whether they are consistent with national guidelines**.
   According to the North Dakota Trauma System Regulations, Section 33-38-01-01 major trauma patient means any patient that fits the trauma triage algorithm adopted by the American College of Surgeons, Committee on Trauma, Resources for Optimal Care of the Injured Patient:1999.

   In 33-38-01-03 it states that EMS and Trauma Centers shall assess patients and activate a trauma code if the patient meets the major trauma definition.

   a. **Describe how children and patients with severe traumatic brain injury and spinal cord injury are triaged from the field to appropriate facilities**.
      In the ND Trauma System Regulations, Section 33-38-01 all patients that meet the criteria for major trauma patients (including all patients with severe traumatic brain injury and spinal cord injury) are to be transported by appropriate means to the nearest designated trauma center. EMS may bypass the nearest designated trauma center for a higher level trauma center provided that is does not result in an additional thirty minutes or more of transport time. If there are multiple trauma centers in the community, the major trauma patient meeting the criteria in steps 1 and 2 of the field triage decision scheme, they should be taken to the trauma center with the highest level of designation.

2. **Within the system, what criteria are used to guide the decision to transfer patients to an appropriate resource facility and specify whether these criteria are uniform across all centers?**
   During site visits the team reviews the medical records of patients that the Level IV or V has kept and those that were transferred. If there are improprieties found, it is included in the report to the State Trauma Committee. Given that the majority of Level IV and V's rarely have a trauma, orthopedic, or neurosurgeons, over triage is not viewed as a problem in North Dakota.

3. **Specify whether there are interfacility transfer agreements to address the needs of each of the following:**
   a. **Transfer to an appropriate resource facility**
      Level III, IV, and V Trauma Centers have transfer agreements with the Level II in their region. The Level II's have transfer agreements with an out of state Level I if needed.

   b. **Traumatic brain injury**
      Level III, IV, and V Trauma Centers have transfer agreements with the Level II in their region. The Level II's have transfer agreements with an out of state Level I if needed.

c. **Spinal cord injury**
   Level III, IV, and V Trauma Centers have transfer agreements with the Level II in their region. The Level II's have transfer agreements with an out of state Level I if needed

d. **Reimplantation**
   Level III, IV, and V Trauma Centers have transfer agreements with the Level II in their region. The Level II's have transfer agreements with an out of state Level I if needed

e. **Burns**
   Level III, IV, and V Trauma Centers have transfer agreements with the Level II in their region. The Level II's have transfer agreements with an out of state Level I if needed

f. **Children**
   Level III, IV, and V Trauma Centers have transfer agreements with the Level II in their region. The Level II's have transfer agreements with an out of state Level I if needed

g. **Repatriation**
   The Canadian Health System works with North Dakota Trauma Centers to transfer injured Canadians back to Canada when the patient is stable. The 5 (out of 6) Level II Trauma Program Managers that responded when asked stated that they have not had any occasion to deal with the Mexican Health Care System.

4. **Describe the system wide policies addressing the mode of transport and the type and qualifications of transport personnel used for interfacility transfers**.
   In the North Dakota Transport Plan, Section 13, III states: "In either urban or rural areas of North Dakota, in major trauma patient situations a rotor wing EMS aircraft is to be utilized if it will result in the patient reaching a designated REGIONAL TRAUMA CENTER more quickly than ground transport with a total time savings of twenty minutes or more."

5. **Specify whether there is a central communication system to coordinate interfacility transfers. Describe how this system has access to information regarding resource availability within the region**.
   There is no central communication system. When the Level IV and V's have a patient to transfer to a Level II, they contact the Level II and the Level II assesses their capabilities and accept or bypass the patient. In ND bypass is a very rare occurrence.

   If the Level II needs to transfer a patient to a Level I or II they follow the same procedure.

Documentation Required:

Prior to Site Visit:

- ☑ EMS Triage criteria for trauma team activation
- ☑ Interfacility transfer criteria **(There is no specific criteria required by the state. Examples are provided in the Trauma System Guidelines Manual).**

A patient with any one of the following criteria must be transported to a trauma designated hospital and a trauma code <u>must</u> be activated.

Glasgow Coma Scale…………………………………………..<14
Systolic Blood Pressure………………………………………..<90
Respiratory Rate…………………………………………<10 or > 29

- All penetrating injuries to head, neck, torso, and extremities proximal to elbow and knee
- Flail Chest
- Combination trauma with burns
- Two or more long-bone fractures
- Amputation proximal to wrist and ankle
- Pelvic Fractures
- Open or depressed skull fractures
- Paralysis
- Major Burns

A patient with any one or more of the following criteria must be transported to a trauma designated hospital and a trauma code <u>may</u> be activated at the discretion of the EMS provider.

- Ejection from an automobile
- Death in the same passenger compartment
- High speed auto crash, with initial speed > 40mph, major auto deformity >20 inches, and intrusion into passenger compartment > 12 inches
- Auto-pedestrian/auto-bicycle with significant impact (>5 mph)
- Pedestrian thrown or run over
- Motorcycle crash > 20mps or rider separated from bike
- Falls > 20 feet
- Rollover
- Extrication time > 20 minutes
- Age <5 or >55
- Cardiac Disease or Respiratory Disease
- Insulin-Dependant Diabetes, cirrhosis, or morbid obesity
- Pregnancy
- Immunosuppressed patients
- Patients with bleeding disorders or on anticoagulants.

1. **Provide data about the number of rehabilitation beds and specialty rehabilitation services (spinal cord injury, traumatic brain injury, and pediatric) available within the trauma system's geographic region. On average, how long do patients need to wait for these rehabilitation beds? Does the average wait vary by type of rehabilitation needed?**

   There are two types of care in North Dakota for rehabilitation:
   - *Rehab Units which are based at Level II Trauma Centers and care for most trauma patients*
   - *SCCI, which are Long Term Hospitals, also provide sub acute Rehabs, including care for ventilated patients and are located in Bismarck and Fargo.*

   The Level II Trauma Center Rehabs are all CARF accredited and have the following bed numbers:
   - *NW Region – 20*
   - *SW Region – 41*
   - *SE Region – 27*
   - *NE Region – 50*

   Each of the Rehabs in the state has their own guidelines about accepting Pediatric patients. Some of the Rehabs admit patients who are over 13 years or older and at some Level II Trauma Centers, the Pediatric patients remain on the Pediatric Unit and the Rehab staff comes to them. Other Pediatric patients that would benefit from Rehab are transferred to Gillette Children's Specialty Healthcare in St. Paul, MN.

   The Level II Trauma Program Managers have stated that when the trauma patient is ready for discharge to Rehab, they are transferred within a day or two, unless there is a need for additional staffing on the Rehab Unit for a particular patient. This includes both to the Level II based Rehab Units and SCCI.

   The Level II Trauma Centers care for most of their TBI patients and many of the SCI patients. They do transfer some of their spinal cord injured patients to Craig in the Denver area and to Bethesda in St. Paul.

2. **Describe how existing trauma system policies and procedures appropriately address treatment guidelines for rehabilitation in acute and rehabilitation facilities.**
   The majority of the patients that are cared for in the Level IV and V Trauma Centers that require Rehabilitation are transferred to a Level II Trauma Center. The Level II Trauma Centers are verified by the American College of Surgeons, Committee on Trauma and follow their requirements for early involvement of the rehabilitation team.

3. **Identify the minimum requirements/qualifications that rehabilitation centers have established for the physician leaders (e.g., Medical Director of Spinal Cord Injury Program, Medical Director of Traumatic Brain Injury Program, and Medical Director of Rehabilitation).**
   The Rehabilitation Programs that are associated with verified Level II Trauma Centers follow the rules from the American College of Surgeons, Committee on Trauma and require a Board Certified Physician. The Rehabilitation Programs in ND are also CARF Certified and follow their requirements.

4. **Describe how rehabilitation specialists are integrated into trauma system planning and advisory groups**.
   Shelley Killen, MD represents an Accredited Trauma Rehabilitation Facility on the ND State Trauma Committee. She is boarded in PMR and has a subspecialty in Spinal Cord Medicine. The Level II Trauma Centers that have Rehabilitation Centers have them represented on their Hospital Trauma Committees.

Documentation Required:

Prior to Site Visit:

☑ A report that specifies the proportion of patients with SCI, TBI (head AIS greater than or equal to 3), major trauma (ISS greater than 15), pediatric (age less than or equal to 12 years, ISS greater than 15) with a discharge disposition listed as an in-patient rehabilitation center.

☑ A list of the rehabilitation centers and their CARF accreditation status

Data from Level II Trauma Centers	# in Trauma Registry	# to Rehab	# SCI	# SCI to Rehab	# TBI (AIS > 3)	#TBI to Rehab	# TBI to Triumph Hospital Central Dakota	Major Trauma # ISS > 15	# ISS >15 to Rehab	<12 y & ISS >15	<12 Y & ISS>15 to Rehab
March 07 - Sept 07	2066	135	53	19	202	41	5	326	47	26	1
%		6.6%	2.6%	1.0%	9.8%	2.0%	0.2%	15.8%	2.3%	1.2%	0.05%

Trinity Hospitals Rehabilitation
CARF Accredited
Level II Trauma Center

Medcenter One Health System Rehabilitation
CARF Accredited
Level II Trauma Center

St. Alexius Medical Center Rehabilitation
CARF Accredited
Level II Trauma Center

Altru Health System Rehabilitation
CARF Accredited
Level II Trauma Center

MeritCare Hospital Rehabilitation
CARF Accredited
Level II Trauma Center

1. **Identify the representative(s) from the trauma lead agency who participate on multi-agency emergency management planning.**
   There are representatives on the State Trauma Committee that are very active in Emergency Preparedness and Response. There is a Local Public Health Emergency and Preparedness Coordinator and 2 from Level II Trauma Centers who are Leaders in Emergency Preparedness in their institutions and the state.. They are members of multiple emergency management planning committees including the ND Anchor Community Work Group on CBRNE Response, the ND Vulnerable Populations Emergency Planning Committee, the Influenza Planning Coalitions, Regional Mass Fatality Planning Coalition and the Regional Health Emergency Advisory Committee, and activities and project related to the HRSA grant.. They also participate in state wide exercises such as Lignite Wind Pandemic Influenza, school shootings, and Airport full scale aviation exercise with mass casualty.

   Unfortunately there have been occasions throughout North Dakota where emergency plans had to be activated. After these activations the plans were assessed and modified based on lessons learned.

   Members of Trauma Center's Trauma Committees, as well as members of the State and Regional Trauma Committees, are also members of their hospital's emergency preparedness committees and community's emergency interagency planning groups.

2. **What disaster preparedness education and training are made available for trauma system healthcare providers?**
   The BORDERS (Biochemical Organic Radioactive Disaster Educational Response System) program provided multiple didactic and full scale training opportunities for health care professionals. The Office of Domestic Preparedness also has also presented the following by Texas A & M instructors:
   - *Emergency Response to Domestic Biologic Incidents*
   - *WMD Threat Risk and Assessment*
   - *Hospital Emergency Management*

   Currently there are regular videoconference trainings and meetings through the ND Department of Health on topics including: ICS and hospital surge planning. These are archived on the ND Department of Health website on the training calendar link. Hospital, public health, and EMS have had numerous training sessions on ICS. There have also been local and state emergency exercises for hazmat response with mass casualty and patient decontamination.

Incident Command Training Courses that have been available in the State includes:

- *IS 700 National Incident Management System*
- *IS 100 Introduction to Incident Command System*
- *IS 200 Applying ICS*
- *IS 300 Intermediate ICS for Expanding Incidents*
- *IS 400 Advanced ICS for Complex Incidents*
- *Hospital Incident Command System (HICS)*

There have been limited courses available for decontamination, triage, and patient tracking.

Communication to the Health Care Providers about educational opportunities that are offered in some counties is not optimal from some of the County Emergency Managers. Consequently classes are not always readily available for the hospital and public health professionals in those counties.

3. **Which of the acute care facilities in the State have developed a disaster response plan and have practiced their plan using a table top or simulated response?**
All of the Level II Trauma Centers are accredited by TJC and have these in place as a requirement for that accreditation. The Level IV and V's have Disaster plans in place, as a requirement of licensure

Ten of the hospitals in North Dakota (the Level II's, III, and 1 IV) have been assessed to be fully prepared, that is staff training, appropriate equipment, and ventilation to care for contaminated patients.

Four Regional Hospital Surge Capacity Plans were developed with input from key stakeholders, including; hospitals, EMS, public health, and emergency management.

There have been table top and simulated exercises in North Dakota's major cities with Level II Trauma Centers. The Trauma Centers, as well as many other disciplines have been involved. Several rural hospitals have exercised portions of their surge plans and hospital emergency/disaster plans.

    a. **What gaps were identified?**
- *Communication, including:*
  - *Emergency alerting notification between multiple hospital campus buildings.*
  - *Communication with EMS & Fire at scene of disaster or hazmat incident.*
  - *Communication with staff involved in lockdown/ controlled access.*
  - *Community wide public information not defined in terms of coordination.*
  - *Adequate portable radios for execution of controlled access and back up communications with Incident Command and between sites.*
- *Funding*
- *Need for HICS training,*
- *Staging area for decontamination at hospitals*
- *Triage*
- *Patient Tracking*
- *The evacuation of hospitals and identification of staging patients and staff*
- *Families of the victims coordination is not well defined in all plans*

4. **When was the last assessment of trauma system preparedness resources conducted, and what were the significant findings of the assessment as they relate to emergency preparedness?**
An assessment by the Trauma System has not been done.

A couple of years ago the State Trauma Committee did identify that there was a disconnection between Emergency Preparedness and the Trauma System. At that time an Emergency Preparedness Representative was added to the State Trauma Committee and the local Public Health Emergency and Preparedness Coordinator was added to the Regional Trauma Committees. This was done to create a linkage between the two.

The North Dakota Healthcare Association (NDHA) has contracted with a team of consultants to do an "Emergency Preparedness Site Visit". This is funded from the HRSA grant. We are currently in the second year of this project, which means all hospitals will get at least two visits. The purpose is to help the hospital to better prepare and steer them in the right direction. One of the team members is also a member of the State Trauma Committee.

5. **Identify any external experts used to assist with the trauma system disaster planning process**.
Providers including Texas Engineering and Extension Service (TEEX), Hazmat for Healthcare, Nick of Time, and Tony Rich have provided expertise in HICS, biologic response, and decontamination for North Dakota. NDHA has contracted with a team of consultants to do an "Emergency Preparedness Site Visit" to all ND hospitals.

6. **What is the trauma system plan to accommodate a need for a surge in personnel, equipment, and supplies?**
    All North Dakota Hospitals have signed Memorandums of Understanding (MOU) agreeing to sharing staff, supplies and available equipment during emergencies. Hospitals also have a surge plan within each region. There is also an EMS Surge plan that outlines the coordination of response and transportation of mass casualties.

    The Trauma System and Trauma Providers have not been integrated into the surge or contaminated patients planning process.

7. **How is the trauma system integrated into the State's incident command system and the communication center?**
    All hospitals are required to have ICS training and procedures in place to implement it. If they do not comply, they are no longer eligible for any federal grants. All of the larger hospitals are trained and have implemented it. Many of the rural facilities have implemented, but some still need additional work. There are 13 HICS instructors in the state available for additional training.

    The State Trauma Coordinator and EMS Director are a part of the ND Health Department Incident Command Team. They have recently participated in a three day exercise dealing with emergency management planning throughout the state that involved multiple agencies and systematic planning and response. They also attend quarterly trainings that involve state emergency response and planning.

Documentation Required:

Prior to Site Visit:

☑ An organizational chart identifying the relationships between key emergency management agencies (trauma system, EMS, public health, emergency management)

❖ **Organizational chart could not be put into the binder due to size. A copy will be available on site.**

1. **What is the membership of the committee charged with ongoing monitoring and evaluating of the trauma system?**
    The State Trauma Committee is responsible for this. The members represent:
    - *ND Committee of Trauma - ACS*
    - *Accredited Trauma Rehabilitation Centers*
    - *ND Chapter of the American College of Emergency Physicians*
    - *UND School of Medicine*
    - *Indian Health Service*
    - *ND Medical Association*
    - *ND Emergency Nurses Association*
    - *ND Nurses Association*
    - *ND Trauma Coordinator*
    - *ND EMS Association – ALS*
    - *ND EMS Association – BLS*
    - *ND American Healthcare Association*
    - *Regional Chairs*
    - *Ad-hoc: American Academy of Pediatrics*
    - *Ad-hoc: ND Legislative Representative*
    - *Ad-hoc: Emergency Preparedness and Response*
    - *Ad-hoc: Trauma Consultant*

    a. **To whom does it report its findings?**
        The North Dakota State Trauma Committee reports to the ND State Health Council, who oversees all programs with the ND Department of Health.

    b. **How does it decide what parameters to monitor?**
        Since the ND Trauma System began, the state expected the Trauma Centers to include Quality Improvement as a central part of their trauma program, reviewing their system and care provided. This is reviewed at the site visits (Level II and III's by the ACS and IV and V's by state teams)

        The state as a whole is developing a QI process. This is in the ~~early~~ infancy stages since we are still working through problems with our registry data.

c. What action is it empowered to take to improve trauma care?

The ND State Trauma Committee has given Provisional Designations Level II Trauma Centers who did not pass a verification visit and had to make corrections in order to achieve verification. During this period the State Trauma Committee offered assistance to the Trauma Center.

If a Level IV or V Trauma Center's QI is found to be a weakness at the time of their site visit, they have been designated for a shorter time than the regular 3 year period. During this time the State Trauma Coordinator and the area Level II Trauma Center's Trauma Coordinator offers their assistance.

The ND State Trauma Committee also has the authority to dedesignate a Trauma Center.

2. Describe the trauma system performance improvement efforts as they pertain to the system for the following groups of providers in the context of system integration:

   a. **Dispatch Centers**

   To date there is not a formal PI process within the Trauma System.

   b. **Prehospital provider agencies**

   There is none within the Trauma System as a whole, but all of the Trauma Centers are required to do QI with their ambulance services. This is reviewed during site visits and reported to the State Trauma Committee.

   c. **Trauma Centers**

   As a Trauma System, we provide the Level IV and V with a list of recommended indicators in the "North Dakota Trauma Guidelines Manual". The day before the ND State Wide Trauma Conference there is a session for the Trauma Coordinators that is developed and presented by the ND State Trauma Coordinators and the Trauma Program Managers from the Level II and III Trauma Centers. This session usually includes presentations on QI.

   Our State and Regional Trauma Committees do not have a formal QI program yet, but issues are brought to the State Trauma Committee and they are discussed and resolved. For example; if a hospital fails a verification/site visit the hospital develops a Plan of Action and presents it to the State Trauma Committee, the plan is discussed, a provisional designation is granted, and monitored by the State Trauma Coordinator and the State Trauma Committee.

d. Other acute care and specialty facilities
The State Trauma Coordinator and the Level II Trauma Program Managers have been working with hospitals that are not designated to encourage and assist them to get designated. Teams from the State and Level II's have also done consult visits with these hospitals.

e. Rehabilitation Centers
Currently this is not in place.

3. **List the process and patient outcome measures that are tracked at the trauma system level, including those for special populations.**
We are planning to look at Regional and Statewide data concerning:
- *Transfer times*
- *Cause codes*
- *Protective devices*
- *ISS scores*
- *Demographics*

4. **As part of your system wide performance improvement, specify whether each of the following are assessed on a regular basis:**
We are still trying to work on problems with our registry to improve our data quality. Consequently we are in the beginning stages of doing this as a State Trauma System.

   a. **Time from arrival to a center and ultimate discharge to a facility capable of providing definitive care. If yes, specify the mean time to transfer**.
   We have looked at a maximum 2 hour length of stay during site visits of the Level IV's and V's for several years on an individual basis and discussed it during the designation discussion at the State Trauma Committee. We are planning to look at this system wide once quality data can be obtained from our registry.

   b. **Proportion of patients above a pre-defined injury severity threshold (e.g. ISS>15, or other criteria) who receive definitive care at a facility other than a Level I or II trauma center (undertriage**)
   We have found that accurate scoring in the Level IV and V Trauma Centers is a problem. During the site visits for designation we look at appropriate transport time (less than 2 hours), appropriateness of the patients they keep, trauma team activations, and all deaths. These are all reported to the State Trauma Committee in the Reviewers report and discussed during the meeting.

c. **Proportion of patients below a pre-defined injury severity threshold (e.g ISS<9) who are transferred from any facility to a Level I or II trauma center (overtriage).**
Our Level IV and V's rarely have a Trauma Surgeon, and very rarely an Orthopedic or Neurosurgeon. The Level IV's and V's are most often staffed by a dedicated ATLS trained Family Practice Physician. If a patient is seen in a Level V, they may have been treated by a trauma trained mid level practitioner. Consequently transfer to the Level II is usually appropriate.

5. **Describe how your system addresses problems related to significant over or under triage, both primary and secondary**.
Because of the lack of surgical services available at the Level IV and V's the Level II's have not noted a problem with over triage.

Under triage is reported from the information gathered at the site visits and reported to the State Trauma Committee. If the Committee determines that this is a problem, recommendations are provided to the hospital and follow up chart reviews are done at a later date, as requested by the State Trauma Committee.

Documentation Required:

Prior to Site Visit:

☑ List of the agencies represented on the committee responsible for trauma system quality assurance

❖ **Currently we do not have a sub-committee developed to address quality assurance issues. Our State Trauma Committee currently deals with any issues that arise.**

<u>TRAUMA MANAGEMENT INFORMATION SYSTEMS</u>
1. **Which agency has oversight of the trauma management information system?**
   The Division of Emergency Services within the Health Department oversees and manages both the trauma and EMS information systems. A Research Analyst has recently been hired to filter through the data and generate reports and analysis on a statewide, regional, and local basis.

   a. **Describe the role and responsibilities of this agency in collecting and maintaining the data.**
      Clinical Data Management (CDM) is our data collecting vendor. Hospitals export their data to the state and the state then sends it to CDM. The state receives quarterly updates (data dumping) from CDM to update the state system. The research analyst is responsible for monitoring this process.

   b. **How are the completeness, timeliness, and quality of the data monitored**?
      CDM is responsible for cleaning and checking the completeness of data once it is submitted to them by the state. Quarterly reports are ran on records that have been submitted and notices via email our sent out to the hospitals who are behind in submitting data. As stated before there has been a continuing problem with all hospitals submitting their data, but these issues are being addressed and data submission is continually improving.

      The ND Data Dictionary was recently revised to be in compliance with the NTDB. The dictionary was distributed to all the hospitals and education was provided at the Trauma Coordinator workshop on the changes made to the dictionary. Also the Level II trauma registrars have made themselves available to the IV's and V's to assist with data entry and coding.

2. **Specify which of the data sources below are linked into the information system. Describe the method of linkage (e.g., probabilistic or deterministic).**
   a. **Motor-vehicle crash or incident data**
      No

   b. **Law enforcement records**
      No

   c. **EMS or other transporting agency records**
      No

   d. **Emergency department records**
      No

   e. **Hospital records (hospital trauma registries)**
      Hospital trauma registries are downloaded to the state trauma registry quarterly.

    f. Hospital administrative discharge data
    No

    g. Rehabilitation data
    No

    h. Coroner/medical examiners records
    No

    i. Financial or payor data
    The trauma registry captures the primary payor.

    j. Dispatch
    No

3. **What are the trauma registry inclusion criteria?**
   ICD-9 codes of 800 – 959.9 and 991.0-3 and one of the following:
   - *All Trauma Codes/Alerts or any level of trauma team activation*
   - *All deaths that are registered as patients at the hospital/ED*
   - *Inter-facility transfers by ambulance that are admitted to the receiving hospital*
   - *Transfers out by ambulance*
   - *Patients admitted for > 48 hours*
   - *Patients admitted from ED to ICU*

   The following are excluded from the criteria:
   - *Same level falls with isolated hip fractures in patients 60 years of age or older (ICD9 codes 820 -821)*
   - *Inhalation of food/object (933 – 938)*
   - *Late effects/complications (905 – 909)*

   These are not included in the trauma registry, unless they are a trauma code/alert or they have an additional injury code:
   - *Poisonings (960 – 989.9)*
   - *Hanging (994.7)*
   - *Adult and child maltreatment (995.5 – 995.8)*
   - *Drowning (994.3)*

4. **Describe the role of the trauma system advisory committee in selecting the data elements for inclusion into the regional registry.**
   Together the Level II and III Trauma Program Managers and the State Trauma Coordinator collaborate to make recommendations to the State Trauma Committee. The State Trauma Committee discusses the recommendations and makes the final decision.

5. **From what source(s) was the data field definitions derived?**
   Resources for the revision of the ND data dictionary included the International Classification of Diseases ICD-9-CM ,9th Revision-Clinical Modification, National Trauma Data Bank Reference Manual, Resources for Optimal Care of the Injured Patient 2006, The Abbreviated Injury Scale 1990 Revision, and the
   US Department of Labor Bureau of Labor Statistics, Occupational Outlook Handbook, 2006-07 Editions.

6. **What pediatric data elements are captured?**
   The only specific pediatric data element is car seats as a protective device.

7. **What local or system wide reports are routinely generated and at what frequency**?
   We have not been able to generate reports due to incomplete data from the registry.

8. **Are data contributed to the National Trauma Database (NTDB) or other outside agencies (e.g., ABA, NEMSIS)?**
   The state trauma registry was downloaded to the NTDB in 2007. In the future the level II and III trauma centers will be submitting their own data to the NTDB per NTDB preference.

Documentation Required:

Prior to Site Visit:

☑ Policies and procedures related to release of data

North Dakota Department of Health

HIPAA Policy

Policy Title: **Release of Health Information**

Policy Number: P-028   **Version**: 1.2 Updated July 22, 2005

Reference: 45 CFR 164.502(d); 45 CFR 164.514 (d) 45 CFR 164.514(e); 45 CFR 164.512(i), 45 CFR 164.512(b)

Applicability: Department of Health

Approved By: Dr. Terry Dwelle, State Health Officer Arvy Smith, Deputy State Health Officer Darleen Bartz, HIPAA Coordinator, Privacy Officer

Effective Date: February 1, 2004

Policy: The NDDoH may release health information data as outlined in the following procedure.
Exceptions: None **Procedure:** The NDDoH may disclose:

- Protected health information with the individual's specific written authorization. Such authorization must meet all the requirements described in the Authorizations Policy (P-004); or
- De-identified health information; or
- A limited data set with a data use agreement; or
- Health information for research if the information is not de-identified or is not a limited data set, with or without the individual's authorization, if the NDDoH uses a data use agreement and obtains documentation that an alteration to, or waiver of, the individual's authorization has been approved by:
- The NDDoH privacy board, or
- The NDDoH Institutional Review Board (IRB) if the research is in part conducted by an NDDoH employee for the Department of Health.
- Decedents' information with a data use agreement. No IRB or privacy board review is needed. Consistent with the Minimum Necessary policy (P-012), the minimum necessary information will be disclosed. In addition, for research on decedents' information, the NDDoH will obtain:
- Representation from the researcher that the information sought is solely for research on the PHI of decedents, and
- Assurance that there will be no attempt to contact family members, and
- Representation that the PHI requested is necessary for the research purpose, and

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- Documentation of the death of such individuals, (if applicable).
- PHI when the NDDoH is operating as a public health authority. NDDoH is authorized to disclose individual information without authorization for the purpose of preventing or controlling disease, injury or disability and for the conduct of public health surveillance, investigation and intervention; or

- Information to a known public health authority. If the public health authority status of an organization is not known, the NDDoH will require a Business Associate Agreement or Data Use Agreement to be completed. Dependent upon the reason for the request from a public health authority, the NDDoH may require a Business Associate Agreement or Data Use Agreement be completed prior to disclosure of PHI to another public health authority; or
- Information without individual authorization to the extent that such disclosure is required or permitted by law.

- Any disclosures not consistent with this policy are a violation of NDDoH policies and procedures and federal HIPAA regulations. Sanctions may be imposed consistent with the Workforce Sanctions policy (P-027). De-identified Health Information
- The NDDoH may disclose de-identified health information without the written authorization of the individual when the health information does not identify an individual and there is no reasonable basis to believe that the information can be used to identify an individual. The NDDoH will use reasonable discretion when disclosing de-identified health information.

- The NDDoH may use protected health information to create information that is not individually identifiable health information or disclose protected health information only to a business associate to create the de-identified information.
- The NDDoH may determine that health information is not individually identifiable health information (de-identified) if the following identifiers of the individual or of relatives, employers, or household members of the individual, are removed and if the NDDoH does not have knowledge that the information could be used alone or in combination with other information to identify the individual:
- Names
- All geographic subdivisions smaller than a State, including street address, city, county, precinct, zip code, and their equivalent geocodes, except for the initial three digits of a zip code if, according to the current publicly available data from the Bureau of the Census:
- The geographic unit formed by combining all zip codes with the same three initial digits contains more than 20,000 people, and
- The initial three digits of a zip code for all such geographic units containing 20,000 or fewer people is changed to 000.

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- All elements of dates (except year) for dates directly related to an individual, including birth date, admission date, discharge date, date of death, and all ages over 89 and all elements of dates (including year) indicative of such age, except that such ages and elements may be aggregated into a single category of age 90 or older
- Telephone numbers
- Fax numbers
- Electronic mail addresses
- Social security numbers
- Medical record numbers
- Health plan beneficiary numbers
- Account numbers
- Certificate/license numbers
- Vehicle identifiers and serial numbers, including license plate numbers
- Device identifiers and serial numbers
- Web Universal Resource Locators (URLs)
- Internet Protocol (IP) address numbers
- Biometric identifiers, including finger and voice prints
- Full face photographic images and any comparable images
- Any other unique identifying number, characteristic or code

- The NDDoH may also determine that health information is not individually identifiable health information (de-identified) if:
- A person within the NDDoH who has appropriate knowledge and experience with statistical and scientific principles and methods for rendering information not individually identifiable:
- Determines that the risk is very small that the information could be used, alone or in combination with other reasonably available information, by an anticipated recipient to identify an individual who is a subject of the information; and
- Documents the methods and results of the analysis that justify such determination.

- The NDDoH may assign a code or other means of record identification to allow information de-identified to be re-identified if:
- The code or other means of record identification is not derived from or related to information about the individual and is not capable of being translated in order to identify the individual;
- The code or other means is not used for any other purpose and does not disclose the mechanism for re-identification.

- De-identified information disclosed via internet access will be accompanied by a statement notifying the user that:

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- Linking the data to other data for the purpose of identifying individuals is prohibited, and
- The user must report to the NDDoH any inadvertent discovery of the identity of any person, and
- The user must make no use of the discovery, and
- By using this data, the user signifies agreement to comply with the above statements.

Limited Data Sets
- The NDDoH may disclose protected health information (PHI) for research, public health or health care operations without the written authorization of the individual if the information is a limited data set and the NDDoH enters into a data use agreement with the limited data set recipient.

- A limited data set is PHI that excludes the following direct identifiers of the individual or of relatives, employers or household members of the individual:
- Names
- Postal address information, other than town or city, county, State and zip code
- Telephone numbers
- Fax numbers
- Electronic mail addresses
- Social security numbers
- Medical record numbers
- Health plan beneficiary numbers
- Account numbers
- Certificate/license numbers
- Vehicle identifiers and serial numbers, including license plate numbers
- Device identifiers and serial numbers
- Web Universal Resource Locators (URLs)
- Internet Protocol (IP) address numbers
- Biometric identifiers, including finger and voice prints
- Full face photographic images and any comparable images

- The NDDoH may disclose a limited data set only if the NDDoH obtains satisfactory assurance, in the form of a data use agreement, that the limited data set recipient will only use or disclose the PHI for limited purposes.

Data Use Agreements
- All requests for data which require a Data Use Agreement are to be sent to the NDDoH HIPAA Coordinator.

- A data use agreement between the NDDoH and the limited data set recipient must:

- Establish the permitted uses and disclosures of the information by the limited data set recipient. The data use agreement may not authorize the limited data set recipient to use or further disclose the information in a manner that would violate these requirements;

- Establish who is permitted to use or receive the limited data set;

- Provide that the limited data set recipient will:

- Not use or further disclose the information other than as permitted by the data use agreement or as otherwise required by law;

- Use appropriate safeguards to prevent use or disclosure of the information other than as provided for by the data use agreement;

- Report to the NDDoH any use or disclosure of which it becomes aware not provided for by its data use agreement;
- Ensure that any agents to whom it provides the limited data set agrees to the same restrictions and conditions that apply to the limited data set recipient with respect to this information;
- Not identify the information or contact the individuals.
- Be signed and dated by the Requestor, the appropriate NDDoH Division Director, and the NDDoH Privacy Officer.

- The proposed Data Use Agreement will be sent to the requestor for review. The requestor must sign and date the Agreement and return to the NDDoH HIPAA Coordinator.

- The appropriate NDDoH Division Director will be requested to review the Data Use Agreement, sign and date.

- The NDDoH HIPAA Coordinator will review the completed Data Use Agreement, sign and date.

- A Data Use Agreement number will be assigned to the Data Use Agreement when the Agreement has been finalized and all appropriate signatures have been obtained.

- A copy of the signed Data Use Agreement will be given to the requestor and the appropriate NDDoH Division. A copy will also be maintained by the HIPAA Coordinator. The signed original will be forwarded by the HIPAA Coordinator to the NDDoH Administrative Services Section. The original will be maintained by the NDDoH Administrative Services Section in a secure file.

- Documentation of the information released (actual copies and/or database fields, etc.) is to be retained by the appropriate NDDoH Division.

- If NDDoH knows of a pattern of activity or practice of the limited data set recipient that constitutes a breach or violation of the data use agreement, NDDoH will take reasonable

Page 6 – Release of Health Information steps to end the breach or violation or the NDDoH will discontinue disclosure of protected health information to the recipient and report the problem to the Secretary of the Department of Health and Human Services (DHHS).
- A Data Use Agreement may also be used in other situations as deemed necessary by the NDDoH HIPAA Coordinator.

- Privacy Board (In relation to this section of the procedure, any reference to an IRB is to be considered an IRB from an organization outside of the NDDoH. The NDDoH IRB policies and procedures are not included in the NDDoH HIPAA policies.)
- The NDDoH privacy board must:

- Have NDDoH staff members with varying backgrounds and appropriate professional competency as necessary to review the effect of the research protocol on the individual's privacy rights and related interests;

- Include at least one member who is not affiliated with the NDDoH or with any entity conducting or sponsoring the research and not related to any person who is affiliated with any such entities;

- Not have any member participating in a review of any project in which the member has a conflict of interest.

- The chair of the NDDoH Privacy Board is the HIPAA Coordinator.

- Prior to the research, the NDDoH obtains representations from the researcher that:
- The use or disclosure of PHI is necessary to prepare a research protocol or preparatory purpose;

- No PHI is to be removed from the NDDoH by the researcher until approval is granted;

- The PHI requested is necessary for the research purposes.

- For a disclosure permitted based on documentation of approval of an alteration or waiver, the documentation from the researcher if an IRB or the NDDoH if a privacy board must include: Identification of the IRB or privacy board and the date on which the alteration or waiver of authorization was approved;

- A statement that the IRB or privacy board has determined that the alteration or waiver of authorization satisfies the following criteria:

- The use or disclosure of PHI involves no more than a minimal risk to the privacy of individuals based on;

- An adequate plan to protect the identifiers from improper use and disclosure;

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- An adequate plan to destroy the identifiers at the earliest opportunity consistent with conduct of the research, unless there is health or research justification for retaining the identifiers or retention is required by law;

- Adequate written assurances that PHI will not be reused or disclosed to any other person or entity except as required by law, for authorized oversight of the research study or for other research for which the use or disclosure of PHI would be permitted;

- The research could not be conducted without the waiver or alteration.

- The research could not be conducted without access to and use of the PHI.

- A brief description of the PHI for which use or access has been determined to be necessary by the IRB and/or privacy board;

- A statement that the alteration or waiver of authorization has been reviewed and approved under either normal or expedited review procedures as follows:

- An IRB must follow the Common Rule as defined in the Federal Register.

- A privacy board must review the proposed research at meetings at which a majority of the privacy board members are present, including one member who is not affiliated with the NDDoH or with any entity conducting or sponsoring the research and not related to any person who is affiliated with any of those entities. The alteration or waiver of authorization must be approved by the majority of the privacy board members present at the meeting unless the privacy board elects to use an expedited review procedure;

- An expedited review procedure may be used if the research involves no more than minimal risk to the privacy of the individuals who are the subject of the PHI for which use or disclosure is being sought. The review and approval of the alteration or waiver of authorization may be carried out by the chair of the privacy board or by one or more members of the privacy board as designated by the chair.

- The documentation of the alteration or waiver of authorization must be signed by the chair or other member as designated by the chair of the IRB or the privacy board.

Related Forms: Data Release Checklist DOH Data Use Agreement for Disclosure of Protected [Individually Identifiable] Health Information **Definitions:** *NDDoH* – North Dakota Department of Health

Page 8 – Release of Health Information *Protected Health Information* – Individually identifiable health information that is transmitted or maintained by electronic media or transmitted or maintained in any other form or medium *Individually Identifiable Health Information* – Health information which includes demographic information that relates to the past, present or future physical or mental health or condition of an individual; the provision of health care to an individual; or the past, present or future payment for the provision of health care to an individual and that identifies the individual or there is a reasonable basis to believe the information can be used to identify the individual *Electronic Media* – Electronic storage media including memory devices in computers and any removable/transportable digital memory medium such as magnetic tape or skid, optical disk or digital memory card; or transmission media used to exchange information already in electronic storage media. Transmission media includes the internet, extranet, leased lines, dial-up lines, private networks and the physical movement of removable/transportable electronic storage media *Research* – Systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge *Public Health Authority* – An agency or authority of the United States, a State, a territory, a political subdivision of a State or territory, or an Indian tribe, or a person or entity acting under a grant of authority from or contract with such public agency, including the employees or agents of such public agency or its contractors or persons or entities to whom it has granted authority, that is responsible for public health matters as part of its official mandate

1. **Describe the current procedures and processes investigators must follow to request access to the trauma system registry**.
   Any person/persons wanting to obtain data from the trauma registry must contact the lead agency. The lead agency then works with the HIPPA team making sure the request is consistent with the approved HIPPA policies and procedures.

2. **What are the mechanisms used to assure patient confidentiality when regional trauma registry data are used by investigators.**
   Mechanisms used to assure confidentiality are consistent with HIPPA policies and procedures. A confidentiality agreement, data use agreement, or business associate agreement may be required before data is released to requesting party.

3. **Provide examples of where research was conducted for the purpose of providing evidence that the processes of care and outcome of injured patients in the system's region are within acceptable standards**.
   We have none to report.

4. **How has research been used to modify policy or practice within the system?**
   We have none to report.

5. **What resources (e.g., personnel and fiscal) are available to the lead agency to assist in conducting system research?**
   - *Research Analyst from the Division of Emergency Services*
   - *UND School of Medicine and Health Sciences*
   - *Office of Rural Health.*

Documentation Required:
Prior to Site Visit:
☑ No additional documentation required

INDICATORS OF TRAUMA SYSTEM DEVELOPMENT STATUS

ASSESSMENT

101.2 There is a description of injuries within the trauma system jurisdiction including the distribution by geographic area, high-risk populations (pediatric, elder, distinct cultural/ethnic, rural, and others), incidence, prevalence, mechanism, manner, intent, mortality, contributing factors, determinants, morbidity, injury severity (including death), and patient distribution using any or all the following: vital statistics, emergency department (ED) data, EMS data, hospital discharge data, State police data (those from law enforcement agencies), medical examiner data, trauma registry, and other data sources. The description is updated at regular intervals.

Note: Injury severity should be determined through the consistent and system-wide application of one of the existing injury scoring methods, for example, Injury Severity Score (ISS).

0	Not known
1	There is no written description of injuries within the trauma system jurisdiction.
2	**One or more population-based data sources (e.g., vital statistics and medical examiner data) describe injury within the jurisdiction, but clinical data sources are not used.**
3	One or more population-based data sources and one or more clinical data sources are used to describe injury within the jurisdiction.
4	Multiple population-based and clinical data sources are used to describe injury within the jurisdiction, and the description is systematically updated at regular intervals.
5	Multiple population-based and clinical data sources (e.g., trauma registry, ED data, and others) are electronically linked and used to describe injury within the jurisdiction.

102.2 Injury surveillance is coordinated with statewide and local community health surveillance.

0	Not known
1	Injury surveillance, as described in 102.1, does not occur within the system.
2	**Injury surveillance occurs in isolation from other health risk surveillance and is reported separately.**
3	Injury surveillance occurs in isolation but is combined and reported with other health risk surveillance processes.
4	Injury surveillance occurs as part of broader health risk assessments.
5	Processes of sharing and linkage of data exist between EMS systems, public health systems, and trauma systems, and the data are used to monitor, investigate, and diagnose community health risks.

102.3 Trauma data are electronically linked from a variety of sources.

Note: Deterministically means with such patient identifiers as name and date of birth. Probabilistically means computer software is used to match likely records through such less certain identifiers as date of incident, patient age, gender, and others.

0   Not known
1   Trauma registry data exist but are not deterministically or probabilistically linked to other databases.
2   Trauma registry data exist and can be deterministically linked through hand-sorting processes.
3   Trauma registry data exist and can be deterministically linked through computer-matching processes.
4   Trauma registry data exist and can be deterministically and probabilistically linked to at least one other injury database including: EMS data systems (i.e., patient care records, dispatch data, and others), ED data systems, hospital discharge data, and others.
5   All data stakeholders (insurance carriers, FARS, and rehabilitation, in addition to typical trauma system resources) have been identified, data access agreements executed, hardware and software resources secured, and the "manpower" designated to deterministically and probabilistically link, analyze, and report a variety of data sources in a timely manner.

POLICY DEVELOPMENT

201.4 The lead agency has adopted clearly defined trauma system standards (e.g., facility standards, triage and transfer guidelines, and data collection standards) and has sufficient legal authority to ensure and enforce compliance.

0   Not known
1   The lead agency does not have sufficient legal authority and has not adopted or defined trauma system performance and operating standards, nor is there sufficient legal authority to do so.
2   Sufficient authority exists to define and adopt standards for trauma system performance and operations, but the lead agency has not yet completed this process.
3   There is sufficient legal authority to adopt and implement operation and performance standards including enforcement. Draft process procedures have been developed.
4   The authority exists to fully develop all operational guidelines and standards; the stakeholders are reviewing draft policies and procedures; and adoption by the lead agency, including implementation and enforcement, is pending.
5   **The authority exists; operational policies and procedures and trauma system performance standards are in place; and compliance is being actively monitored. *** Enforcement not exercised**

203.1 The lead agency, in concert with a trauma-specific multidisciplinary, multi-agency advisory committee, has adopted a trauma system plan.

0   Not known
1   There is no trauma system plan, and one is not in progress.
2   There is no trauma system plan, although some groups have begun meeting to discuss the development of a trauma system plan.
3   A trauma system plan was developed and adopted by the lead agency. The plan, however, has not been endorsed by trauma stakeholders.
4   **A trauma system plan has been adopted, developed with multi-agency groups, and endorsed by those agencies.**
5   A comprehensive trauma system plan has been developed, adopted in conjunction with trauma stakeholders, and includes the integration of other systems (e.g., EMS, public health, and emergency preparedness).

203.4 The trauma system plan clearly describes the system design (including the components necessary to have an integrated and inclusive trauma system) and is used to guide system implementation and management. For example, the plan includes references to regulatory standards and documents, and includes methods of data collection and analysis.

0   Not known
1   There is no trauma system plan.
2   The trauma system plan does not address or incorporate the trauma system components (prehospital, communication, transportation, acute care, rehabilitation, and others), nor is it inclusive of all-hazards preparedness, EMS, or public health integration.
3   The trauma system plan provides general information about all the components including all-hazards preparedness, EMS , and public health integration; however, it is difficult to determine who is responsible and accountable for system performance and implementation.
4   The trauma system plan addresses every component of a well-organized and functioning trauma system including all-hazards preparedness and public health integration.   Specific information on each component is provided, and trauma system design is inclusive of providing for specific goals and objectives for system performance.
5   The trauma system plan is used to guide system implementation and management. Stakeholders and policy leaders are familiar with the plan and its components and use the plan to monitor system progress and to measure results.

204.2 Financial resources exist that support the planning, implementation, and ongoing management of the administrative and clinical care components of the trauma system.

0   Not known

1   There is no funding to support the trauma system planning, implementation, or ongoing management and operations for either trauma system administration or trauma clinical care.

2   Some funding for trauma care within the third-party reimbursement structure has been identified, but ongoing support for administration and clinical care outside the third-party reimbursement structure is not available.

3   There is current funding for the development of the trauma system within the lead agency organization consistent with the trauma system plan, but costs to support clinical care support services have not been identified (transportation, communication, uncompensated care, standby fees, and others). No ongoing commitment of funding has been secured.

4   There is funding available for both administrative and clinical components of the trauma system plan. A mechanism to assess needs among various providers has begun. Implementation costs and ongoing support costs of the lead agency have been addressed within the plan.

5   A stable (consistent) source of reliable funding for the development, operations, and management of the trauma program (clinical care and lead agency administration) has been identified and is being used to support trauma planning, implementation, maintenance, and ongoing program enhancements.

204.3 Designated funding for trauma system infrastructure support (lead agency) is legislatively appropriated.

*Note: Although nomenclature concerning designated, appropriated, and general funds varies between jurisdictions, the intent of this indicator is to demonstrate long-term, stable funding for trauma system development, management, evaluation, and improvement.

0   Not known

1   There is no designated funding to support the trauma system infrastructure.

2   One-time funding has been designated for trauma system infrastructure support, and appropriations have been made to the lead agency budget.

3   Limited funds for trauma system development have been identified, but the funds have not been appropriated for trauma system infrastructure support.

4   Consistent, though limited, infrastructure funding has been designated and appropriated to the lead agency budget.

5   The legislature has identified, designated, and appropriated sufficient infrastructure funding for the lead agency consistent with the trauma system plan and priorities for funding administration and operations.

208.1 The trauma system and the public health system have established linkages including programs with an emphasis on population-based public health surveillance, and evaluation, for acute and chronic traumatic injury and injury prevention.

0   Not known
1   There is no evidence that demonstrates program linkages, a working relationship, or the sharing of data between public health and the trauma system. Population-based public health surveillance, and evaluation, for acute or chronic traumatic injury and injury prevention has not been integrated with the trauma system.
2   There is little population-based public health surveillance shared with the trauma system, and program linkages are rare. Routine public health status reports are available for review by the trauma system lead agency and constituents.
3   The trauma system and the public health system have begun sharing public health surveillance data for acute and chronic traumatic injury. Program linkages are in the discussion stage.
4   The trauma system has begun to link with the public health system, and the process of sharing public health surveillance data is evolving. Routine dialogue is occurring between programs.
5   The trauma system and the public health system are integrated. Routine reporting, program participation, and system plans are fully vested. Operational integration is routine, and measurable progress can be demonstrated. (Demonstrated integration and linkage could include such activities as rapid response to and notification of incidents, integrated data systems, communication cross-operability, and regular epidemiology report generation.)

ASSURANCE

301.1 The lead trauma authority ensures that each member hospital of the trauma system collects and uses patient data as well as provider data to assess system performance and to improve quality of care. Assessment data are routinely submitted to the lead trauma authority.

0   Not known
1   There is no system-wide management information data collection system that the trauma centers and other community hospitals regularly contribute to or use to evaluate the system.
2   There is a trauma registry system in place in the trauma centers, but it is used by neither all facilities within the system nor the lead trauma authority to assess system performance.
3   The trauma management information system contains information from all facilities within a geographic area.
4   The trauma management information system is used by the trauma centers to assess provider and system performance issues.
5   Hospital trauma registry data are routinely submitted to the lead trauma authority, are aggregated, and are used to evaluate overall system performance.

302.1 There is well-defined trauma system medical oversight integrating the specialty needs of the trauma system with the medical oversight for the overall EMS system.

Note: The EMS System medical director and the trauma medical director may, in fact, be the same person.

0   Not known
1   There is no medical oversight for EMS providers within trauma system with the medical oversight for the trauma system.
2   EMS medical oversight for all levels of prehospital providers caring for the trauma patient is provided, but such oversight is provided outside of the purview of the trauma system.
3   The EMS and trauma medical directors have integrated prehospital medical oversight for prehospital personnel caring for trauma patients.
4   Medical oversight is routinely given to EMS providers caring for trauma patients. The trauma system has integrated medical oversight for prehospital providers and routinely evaluates the effectiveness of both on-line and off-line medical oversight.
5   The EMS and trauma system fully integrate the most up-to-date medical oversight and regularly evaluate program effectiveness. System providers are included in the development of medical oversight policies.

302.6 There are mandatory system-wide prehospital triage criteria to ensure that trauma patients are transported to an appropriate facility based on their injuries. These triage criteria are regularly evaluated and updated to ensure acceptable and system-defined rates of sensitivity and specificity for appropriately identifying the major trauma patient.

0   Not known

1   There are no mandatory universal triage criteria to ensure trauma patients are transported to the most appropriate hospital.

2   There are differing triage criteria guidelines used by different providers. Appropriateness of triage criteria and subsequent transportation are not evaluated for sensitivity or specificity.

3   Universal triage criteria are in the process of being linked to the management information system for future evaluation.

4   The triage criteria are used by all prehospital providers. There is system-wide evaluation of the effectiveness of the triage tools in identifying trauma patients and in ensuring that they are transported to the appropriate facility.

5   System participants routinely evaluate the triage criteria for effectiveness. There is linkage with the trauma system, and sensitivity and specificity (over- and under-triage rates) of the tools used are regularly reported through the trauma lead authority. Updates to the triage criteria are made as necessary to improve system performance.

303.1 The trauma system plan has clearly defined the roles and responsibilities of all acute care facilities treating trauma and of facilities that provide care to specialty populations (e.g., burn, pediatric, spinal cord injury, and others).

0   Not known

1   There is no trauma system plan that outlines roles and responsibilities of all acute care facilities treating trauma and of facilities that provide care to special populations.

2   There is a trauma system plan, but it does not address the roles and responsibilities of licensed acute care and specialty care facilities.

3   The trauma system plan addresses the roles and responsibilities of licensed acute care facilities or specialty care facilities, but not both.

4   The trauma system plan addresses the roles and responsibilities of licensed acute care facilities and specialty care facilities.

5   The trauma system plan clearly defines the roles and responsibilities of all acute care facilities treating trauma within the system jurisdiction. Specialty care services are addressed within the plan, and appropriate policies and procedures are implemented and tracked.

307.1 The trauma system engages in regular evaluation of all licensed acute care facilities that provide trauma care to trauma patients and designated trauma hospitals. Such evaluation involves independent external reviews.

0 Not known

1 There is no ongoing mechanism for the trauma system to assess or evaluate the quality of trauma care delivered by all licensed acute care facilities that provide trauma care to trauma patients and designated trauma hospitals.

2 There is a mechanism for the trauma system to evaluate trauma care services in designated trauma hospitals through internal performance improvement processes.

3 There is a mechanism to evaluate trauma care services across the entire trauma care system through performance improvement processes.

4 **Review of trauma care quality is both internal (through routine monitoring and evaluation) and external (through independent review during redesignation or reverification of trauma centers).**

5 Quality of trauma care is ensured through both internal and external methods. Internal review is regular, and participation is routine for trauma stakeholders. External independent review teams provide further assurance of quality trauma care within all licensed acute care and trauma facilities treating trauma patients.

308.1 The lead agency has incorporated, within the trauma system plan and the trauma center standards, requirements for rehabilitation services including interfacility transfer of trauma patients to rehabilitation centers.

0 Not known

1 There are no written standards or plans for the integration of rehabilitation services with the trauma system or with trauma centers.

2 The trauma system plan has incorporated the use of rehabilitation services, but the use of those facilities for trauma patients has not been fully realized.

3 The trauma system plan has incorporated requirements for rehabilitation services. The trauma centers routinely use the rehabilitation expertise although written agreements do not exist.

4 **The trauma system plan incorporates rehabilitation services throughout the continuum of care. Trauma centers have actively included rehabilitation services and their programs in trauma patient care plans.**

5 There is evidence to show a well-integrated program of rehabilitation is available for all trauma patients. Rehabilitation programs are included in the trauma system plan, and the trauma centers work closely with rehabilitation centers and services to ensure quality outcomes for trauma patients.

311.4 Laws, rules, and regulations are routinely reviewed and revised to continually strengthen and improve the trauma system.

0   Not known
1   There is no process for examining laws, rules, or regulations.
2   Laws, rules, and regulations are reviewed and revised only in response to a "crisis" (e.g., malpractice insurance costs).
3   Laws, rules, and regulations are reviewed and revised on a periodic schedule (e.g., every 5 years).
4   **Laws, rules, and regulations are reviewed by agency personnel on a continuous basis and are revised as needed.**
5   Laws, rules, and regulations are reviewed as part of the performance improvement process involving representatives of all system components and are revised as they negatively impact system performance.